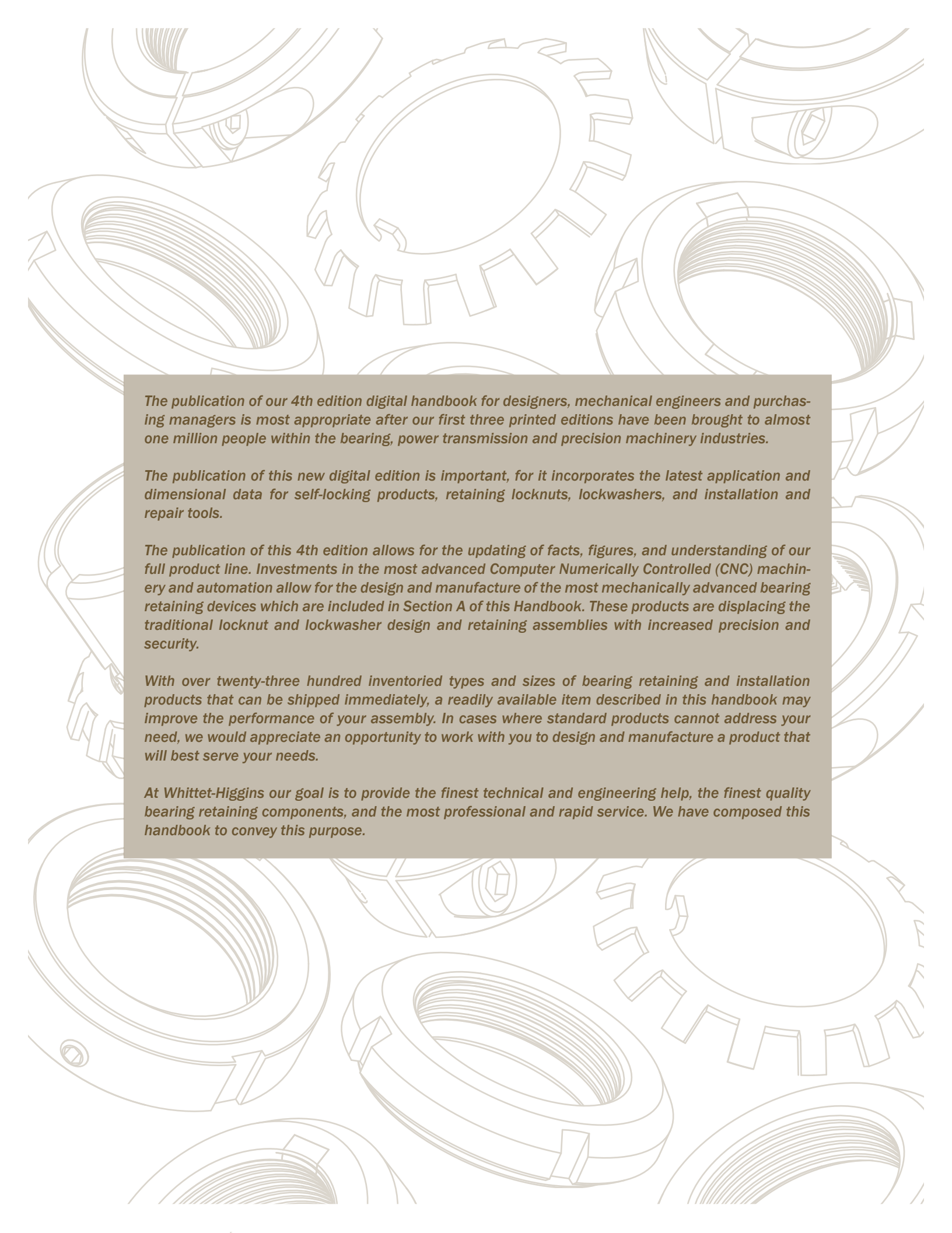




whittet-higgins

HANDBOOK OF ENGINEERING & DESIGN
BEARING ACCESSORIES, COLLARS & INSTALLATION TOOLS



The publication of our 4th edition digital handbook for designers, mechanical engineers and purchasing managers is most appropriate after our first three printed editions have been brought to almost one million people within the bearing, power transmission and precision machinery industries.

The publication of this new digital edition is important, for it incorporates the latest application and dimensional data for self-locking products, retaining locknuts, lockwashers, and installation and repair tools.

The publication of this 4th edition allows for the updating of facts, figures, and understanding of our full product line. Investments in the most advanced Computer Numerically Controlled (CNC) machinery and automation allow for the design and manufacture of the most mechanically advanced bearing retaining devices which are included in Section A of this Handbook. These products are displacing the traditional locknut and lockwasher design and retaining assemblies with increased precision and security.

With over twenty-three hundred inventoried types and sizes of bearing retaining and installation products that can be shipped immediately, a readily available item described in this handbook may improve the performance of your assembly. In cases where standard products cannot address your need, we would appreciate an opportunity to work with you to design and manufacture a product that will best serve your needs.

At Whittet-Higgins our goal is to provide the finest technical and engineering help, the finest quality bearing retaining components, and the most professional and rapid service. We have composed this handbook to convey this purpose.



INDEX OF CONTENTS

SERIES	DESCRIPTION	PAGE
PURPOSE		i
INDEX		ii - iii
SECTION A - MECHANICAL BEARING & POWER TRANSMISSION RETAINING DEVICES		
Introduction to Mechanical Retaining Products		
BL Series	Bearlok - Inch Thread	A1
BLM Series	Bearlok - Metric Thread	A2
NSH Series	Shoelok - Inch Thread	A3
NSHM Series	Shoelok - Metric Thread	A4
TLN Series	Tangentlok - Inch Thread	A5
TLM Series	Tangentlok - Metric Thread	A6
CNB Series	One-Piece Clampnut - Inch Thread	A7
CNM Series	One-Piece Clampnut - Metric Thread	A8
CNC Series	One-Piece Clampnut - Coarse Thread	A9
CNC-S Series	One-Piece Clampnut - Coarse Thread - Stainless Steel	A10
CNC-A Series	One-Piece Clampnut - Coarse Thread - Aluminum	A11
CNF Series	One-Piece Clampnut - Fine Thread	A12
CNF-S Series	One-Piece Clampnut - Fine Thread - Stainless Steel	A13
CNF-A Series	One-Piece Clampnut - Fine Thread - Aluminum	A14
CNS Series	One-Piece Clampnut - 16 TPI	A15
CNS-S Series	One-Piece Clampnut - 16 TPI - Stainless Steel	A16
CNS-A Series	One-Piece Clampnut - 16 TPI - Aluminum	A17
SNC Series	Two-Piece Splitnut - Coarse Thread	A18
SNC-S Series	Two-Piece Splitnut - Coarse thread - Stainless Steel	A19
SNF Series	Two-Piece Splitnut - Fine Thread	A20
SNF-S Series	Two-Piece Splitnut - Fine Thread - Stainless Steel	A21
SNS Series	Two-Piece Splitnut - 16 TPI	A22
SNS-S Series	Two-Piece Splitnut - 16 TPI - Stainless Steel	A23
SECTION B - PREVAILING TORQUE STYLE BEARING & POWER TRANSMISSION RETAINING DEVICES		
Introduction to Prevailing Torque Style Products		
BH Series	Bearhug - Inch Thread	B1
BHI Series	Bearhug - 16 TPI	B2
BHL Series	Bearhug - Inch Thread - Left Handed	B3
BHM Series	Bearhug - Inch Thread - High Strength	B4
BHS Series	Bearhug - Inch Thread - Stainless Steel	B5
BHT Series	Bearhug - Inch Thread - Heat Resistant	B6
BM Series	Bearhug - Metric Thread	B7
BML Series	Bearhug - Metric Thread - Left Handed	B8
BMM Series	Bearhug - Metric Thread - High Strength	B9
BMS Series	Bearhug - Metric Thread - Stainless Steel	B10
BMT Series	Bearhug - Metric Thread - Heat Resistant	B11



INDEX OF CONTENTS (CONTINUED)

SERIES	DESCRIPTION	PAGE
--------	-------------	------

SECTION C - PRECISION BEARING & POWER TRANSMISSION LOCKNUTS & LOCKWASHERS

Introduction to Precision Retaining Products

PN Series	Precision Locknut - Inch Thread	C1
PL Series	Precision Locknut - Inch Thread - Left Handed	C2
PT Series	Precision Locknut - Inch Thread - Small Profile	C3
PW Series	Precision Lockwasher - Inch Thread	C4
PWF Series	Precision Lockwasher - Inch Thread - Flat	C5
PWT Series	Precision Lockwasher - Inch Thread - Small Profile	C6
PWTF Series	Precision Lockwasher - Inch Thread - Flat - Small Profile	C7

SECTION D - BASIC BEARING & POWER TRANSMISSION LOCKNUTS & LOCKWASHERS

Introduction to Basic Retaining Products

N/AN Series	Basic Locknut - Inch Thread	D1
NE Series	Basic Locknut - 11 TPI	D2
NH Series	Basic Locknut - Heavy Duty	D3
NI Series	Basic Locknut - 16 TPI	D4
NL Series	Basic Locknut - Inch Thread - Left Handed	D5
NS Series	Basic Locknut - Inch Thread - Stainless Steel	D6
NT Series	Basic Locknut - Inch Thread - Small Profile	D7
N-XXX Series	Basic Locknut - Inch Thread - Small Profile	D8
KM Series	Basic Locknut - Metric Thread	D9
KML Series	Basic Locknut - Metric Thread - Left Handed	D10
KMM Series	Basic Locknut - Metric Thread - High Strength	D11
KMS Series	Basic Locknut - Metric Thread - Stainless Steel	D12
W Series	Basic Lockwasher - Inch Thread	D13
WH Series	Basic Lockwasher - Inch Thread - Heavy Duty	D14
WI Series	Basic Lockwasher - 16 TPI	D15
WS Series	Basic Lockwasher - Inch Thread - Stainless Steel	D16
WT Series	Basic Lockwasher - Inch Thread - Small Profile	D17
W-XXX Series	Basic Lockwasher - Inch Series - Small Profile	D18
PP Series	Basic Locking Plate - Inch Series	D19
MB Series	Basic Lockwasher - Metric Thread	D20
MBA Series	Basic Lockwasher - Metric Thread - Keybent	D21
MBS Series	Basic Lockwasher - Metric Thread - Stainless Steel	D22

SECTION E - MILITARY SPECIFICATION LOCKNUTS AND LOCKWASHERS

Introduction to Military Retaining Products

MS-1722XX Series	Locknut - Inch Thread - High Strength - Small Profile	E1
MS-19028-XX1 Series	Locknut - Inch Thread	E2
MS-19068-XX2 Series	Locknut - Inch Thread - Zinc Plated	E3
MS-19068-XX3 Series	Locknut - Inch Thread - Stainless Steel	E4
MS-1722XX Series	Lockwasher - Inch Thread - High strength - Small Profile	E5
MS-19070-XX1 Series	Lockwasher - Inch Thread	E6
MS-19070-XX2 Series	Lockwasher - Inch Thread - Zinc Plated	E7
MS-19070-XX3 Series	Lockwasher - Inch Thread - Stainless Steel	E8



INDEX OF CONTENTS (CONTINUED)

SERIES	DESCRIPTION	PAGE
SECTION F - BEARING ADAPTER SLEEVES		
<i>Introduction to Bearing Adapters</i>		
SNW-00 Series	Adapter Sleeve Assembly - Inch Series	F1
SNW-100 Series	Adapter Sleeve Assembly - Inch Series- Heavy Duty	F2
SNW-3100 Series	Adapter Sleeve Assembly - Inch Series - Small Profile	F3
SECTION G - SHRINK DISCS AND SHAFT COLLARS		
<i>Introduction to Shrink Discs & Collars</i>		
BLC Series	Shrink Disc - Inch Bore Sizes	G1
CC Series	One-Piece Collar - Inch Bore Sizes	G2
CC-S Series	One-Piece Collar - Inch Bore Sizes - Stainless Steel	G3
CC-A Series	One-Piece Collar - Inch Bore Sizes - Aluminum	G4
SC Series	Two-Piece Collar - Inch Bore Sizes	G5
SC-S Series	Two-Piece Collar - Inch Bore Sizes - Stainless Steel	G6
SC-A Series	Two-Piece Collar - Inch Bore Sizes - Aluminum	G7
CCM Series	One-Piece Collar - Metric Bore Sizes	G8
SECTION H - INSTALLATION AND REPAIR TOOLS		
<i>Introduction to Bearing Tools</i>		
BAS Series	Assembly Socket - Inch Threads	H1
BASM Series	Assembly Socket - Metric Threads	H2
PAS Series	Adjustable Spanner Wrench	H3
RTD Series	Rethreading Die - Inch Threads	H4
RTDM Series	Rethreading Die - Metric Threads	H5
HYAN Series	Hydraulic Assembly Nut - Inch Threads	H6
HYKM Series	Hydraulic Assembly Nut - Metric Threads	H7
APPENDIXES		
UNS Thread Specifications & Tolerances		X1
ACME Thread Specifications & Tolerances		X2
UNF Thread Specifications & Tolerances		X3
UNC Thread Specifications & Tolerances		X4
16 TPI Thread Specifications & Tolerances		X5
11 TPI Thread Specifications & Tolerances		X6
Metric Thread Specifications & Tolerances		X7
Metric Trapezoidal Thread Specifications & Tolerances		X8
W Series Shaft Keyway Specifications		X9
WH Series Shaft Keyway Specifications		X10
WI Series Shaft Keyway Specifications		X11
WT & PWT Series Shaft Keyway Specifications		X12
W-000 & PP Series Shaft Keyway Specifications		X13
MB Series Shaft Keyway Specifications		X14
Identifying a Threaded Shaft - 3 Wire Method		X15
Bearing Face to Pitch Diameter Runout Specifications		X16
Lockwasher Face Flatness Specifications		X17



INDEX OF CONTENTS (CONTINUED)

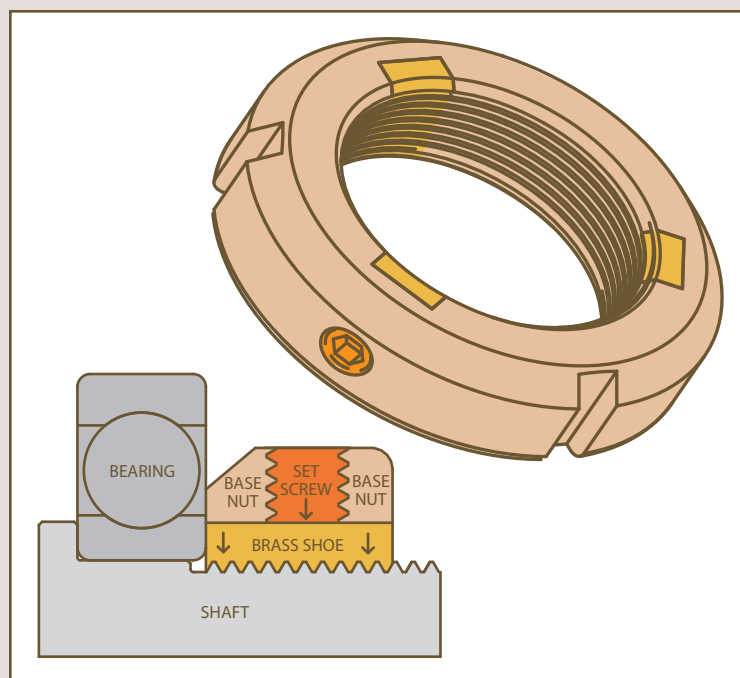
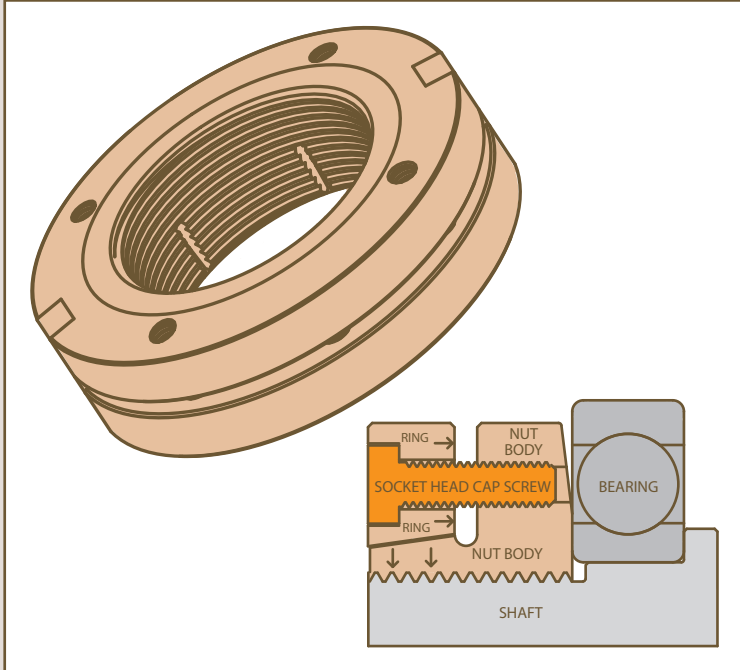
SERIES	DESCRIPTION	PAGE
APPENDIXES (Continued)		
	Revision History	X18

Introduction to Mechanical Retaining Products

The first mechanically locking bearing and power transmission devices were developed in the late 1800's for textile manufacturing mill applications. The smooth-bore set-screw shaft collar was adapted by threading the bore. While crude in design, the need for retaining devices with greater holding strength were evolving.

Today the multitude of applications has led to the proliferation of application specific precision mechanical retaining devices for bearing and mechanical power transmission assemblies. Whittet-Higgins Company leads in development of such devices with five (5) different types of mechanical retainers.

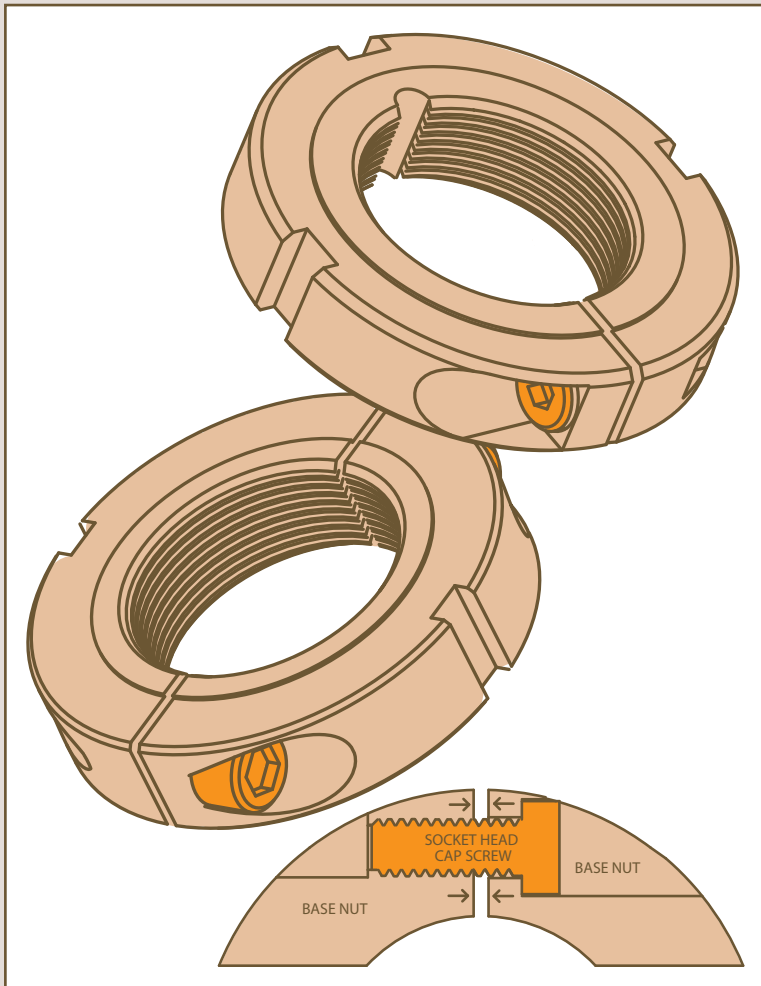
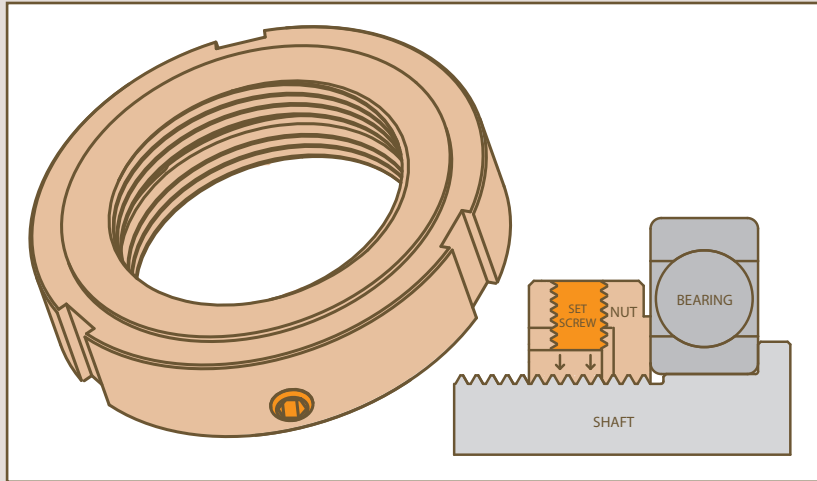
Whittet-Higgins' **Bearlok** threaded retaining products consist of a base nut, compression ring, and socket head cap screws. The base nut has a thick walled main body, a thin externally tapered/internally threaded back that is longitudinally slit into multiple sections. The ring has the same outer diameter as the main body of the nut, with a tapered bore matching that of the back of the nut. By tightening the socket cap screws in a bolt circle pattern, the ring is tightened against the nut driving the multiple sections of the rear of the Bearlok radially inward evenly securing the nut onto the shaft.



Whittet-Higgins' **Shoelok** retaining products consist of a hardened nut with three (3) hex set screws tangent to the outside diameter. When these set screws are torqued in a bolt circle pattern they provide force to press three (3) internally threaded brass shoes matching the thread of the nut towards the center of the shaft. The shoes forced against the shaft provide the secure fastening of the Shoelok to the shaft threads.

An Introduction to Mechanical Retainers (Continued)

Whittet-Higgins' Tangentlok retaining products consist of a nut with three (3) hex set screws embedded by the way of the outside diameter that when torqued in a bolt circle pattern provide deformation of the relieved inner section of the locknut. This deformation provides the secure fastening of the Tangentlok to the shaft.



Whittet-Higgins' One-Piece Clampnut retaining products consist of a locknut that is slit from the outside diameter to the bore. Then the two sides are joined by a socket head screw, allowing users to pull together the two sides of the Clampnut, reducing the overall thread diameter and securely fastening the clampnut to the shaft or spindle threads.

Whittet-Higgins' Two-Piece Splitnut line of retaining products is constructed from a base locknut cut in two (2) halves and joined by two (2) socket head screws, allowing users to pull together the two (2) sides of the locknut, reducing the overall thread diameter and securely fastening the Splitnut to the shaft or spindle threads. The Splitnut line of products are ideal for applications where access from the end of a shaft or spindle is not available.

Increasing demand for precision, accurate adjustability and secure locking of modern bearing and power transmission assemblies has led to the development of threaded mechanical retaining devices. Each approaches the assembly differently, especially with concern for axial or radial access, whereby the designer, engineer, or technician maximizes the benefits necessary for their particular application.



BEARLOK - BL SERIES - INCH

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- High axial loading capacity
- Balanced design for high speed applications
- Prevents assemblies from loosening due to vibration, shock and torque
- Uniform 360 degree thread clamping to center of shaft
- Longitudinal (Z-Axis) access to locking and adjustment of assembly
- Easier and faster to install than traditional locknut and lockwasher
- Eliminates the need for cutting or repairing shaft keyway
- Infinite adjustment and preloading capability
- Does not damage shaft threads when secured
- Manganese phosphate coated for corrosion resistance
- Meets and exceeds specifications of ANSI/ABMA 8.2-1999
- Manufactured in USA and RoHS Compliant

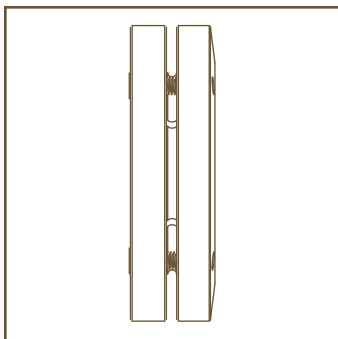
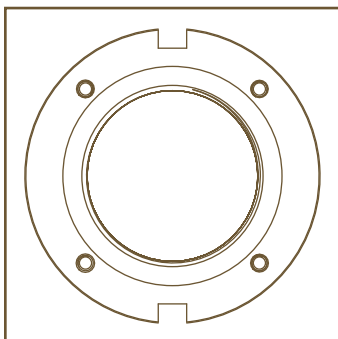
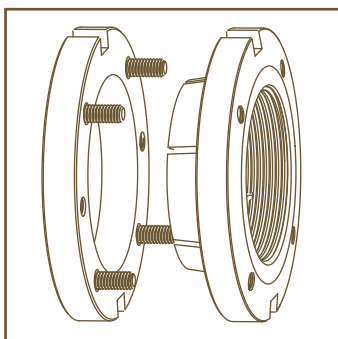
Applications:

- High-speed balanced assemblies
- High precision assemblies
- Off-road equipment and machinery
- Mining and mineral extraction equipment
- Pulp, paper and steel mill rolls
- Pumps

Max Operating Temperature: 300 Deg F

Materials:

Base Threaded Nut - Carbon Steel
Compression Ring - Hardened Alloy
Fasteners - Hardened Alloy



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (In-Lbs)
BL-02	0.586-32	1.240	0.830	0.575	13100	M3	17
BL-03	0.664-32	1.340	0.910	0.575	14400	M3	17
BL-04	0.781-32	1.620	1.030	0.690	19700	M4	24
BL-05	0.969-32	1.810	1.260	0.690	22800	M4	24
BL-06	1.173-18	2.040	1.500	0.710	25900	M4	24
BL-07	1.376-18	2.360	1.740	0.730	34100	M4	24
BL-08	1.563-18	2.600	1.930	0.730	37300	M4	24
BL-09	1.767-18	2.880	2.170	0.770	41100	M5	35
BL-10	1.967-18	3.070	2.370	0.770	43400	M5	35
BL-11	2.157-18	3.350	2.600	0.790	49600	M5	35
BL-12	2.360-18	3.590	2.800	0.790	52500	M5	35
BL-13	2.548-18	3.780	3.000	0.790	54600	M5	35
BL-14	2.751-18	4.140	3.230	0.945	73800	M6	70
BL-15	2.933-12	4.330	3.430	0.945	76500	M6	70
BL-16	3.137-12	4.720	3.700	0.984	84400	M6	70
BL-17	3.340-12	4.920	3.900	0.984	86700	M6	70
BL-18	3.527-12	5.230	4.130	1.063	101300	M6	70
BL-19	3.730-12	5.470	4.330	1.063	105100	M6	70
BL-20	3.918-12	5.710	4.530	1.063	109000	M6	70
BL-21	4.122-12	5.910	4.760	1.102	120200	M6	70
BL-22	4.325-12	6.100	5.040	1.102	122400	M6	70
BL-24	4.716-12	6.500	5.430	1.102	126800	M6	70
BL-26	5.106-12	6.890	5.870	1.220	141100	M6	70
BL-28	5.497-12	7.290	6.300	1.280	150200	M6	70
BL-30	5.888-12	7.680	6.730	1.280	153900	M6	70
BL-32	6.284-8	8.270	7.170	1.437	197800	M8	100
BL-34	6.659-8	8.660	7.600	1.437	202900	M8	100
BL-36	7.066-8	9.060	8.000	1.516	217900	M8	100
BL-38	7.472-8	9.450	8.430	1.575	220900	M8	100
BL-40	7.847-8	9.840	8.900	1.656	238300	M8	100

Thread to Face Runout Specifications Available on Page X16

Four (4) Socket Head Cap Screws on Sizes 02 - 14 / Eight (8) Socket Head Screws on Sizes 15 - 40

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

Downloadable 3D & 2D CAD models available
at www.whittet-higgins.com

A1

Engineering & Sales Support: (401) 728-0700



Benefits & Characteristics:

- Self-locking
- High axial loading capacity
- Balanced design for high speed applications
- Prevents assemblies from loosening due to vibration, shock and torque
- Uniform 360 degree thread clamping to center of shaft
- Longitudinal (Z-Axis) access to locking and adjustment of assembly
- Easier and faster to install than traditional locknut and lockwasher
- Eliminates the need for cutting or repairing shaft keyway
- Infinite adjustment and preloading capability
- Does not damage shaft threads when secured
- Manganese phosphate coated for corrosion resistance
- Meets and exceeds specifications of ISO 2982-2:2013(E)
- Manufactured in USA and RoHS Compliant

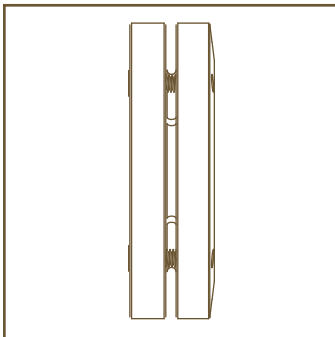
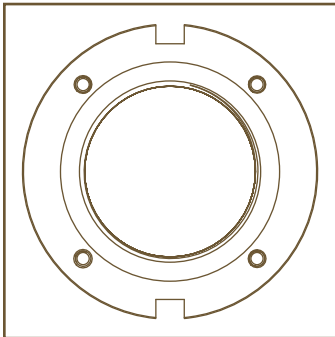
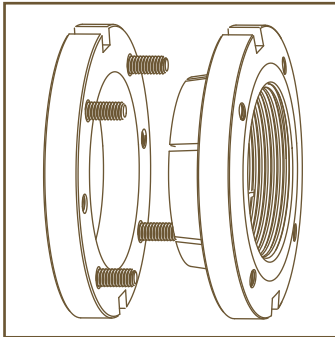
Applications:

- High-speed balanced assemblies
- High precision assemblies
- Off-road equipment and machinery
- Mining and mineral extraction equipment
- Pulp, paper and steel mill rolls
- Pumps

Max Operating Temperature: 300 Deg F

Materials:

Base Threaded Nut - Carbon Steel
Compression Ring - Hardened Alloy
Fasteners - Hardened Alloy



Part Number	Thread	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)	Socket Head Cap Screw	Suggested Torque (In-Lbs)
BLM-02	M15 X 1.0	31.5	21.1	14.5	58	M3	17
BLM-03	M17 X 1.0	34.0	23.1	14.5	64	M3	17
BLM-04	M20 X 1.0	41.1	26.2	17.5	88	M4	24
BLM-05	M25 X 1.5	46.0	32.0	17.5	101	M4	24
BLM-06	M30 X 1.5	51.8	38.1	18.0	115	M4	24
BLM-07	M35 X 1.5	59.9	44.2	18.5	152	M4	24
BLM-08	M40 X 1.5	66.0	49.0	18.5	166	M4	24
BLM-09	M45 X 1.5	73.2	55.1	19.5	183	M5	35
BLM-10	M50 X 1.5	78.0	60.2	19.5	193	M5	35
BLM-11	M55 X 2.0	85.1	66.0	20.0	221	M5	35
BLM-12	M60 X 2.0	91.2	71.1	20.0	234	M5	35
BLM-13	M65 X 2.0	96.0	76.2	20.0	243	M5	35
BLM-14	M70 X 2.0	105.2	82.0	24.0	328	M6	70
BLM-15	M75 X 2.0	110.0	87.1	24.0	340	M6	70
BLM-16	M80 X 2.0	119.9	94.0	25.0	376	M6	70
BLM-17	M85 X 2.0	125.0	99.1	25.0	386	M6	70
BLM-18	M90 X 2.0	132.8	104.9	27.0	451	M6	70
BLM-19	M95 X 2.0	138.9	110.0	27.0	468	M6	70
BLM-20	M100 X 2.0	145.0	115.1	27.0	485	M6	70
BLM-21	M105 X 2.0	150.1	120.9	28.0	535	M6	70
BLM-22	M110 X 2.0	154.9	128.0	28.0	545	M6	70
BLM-24	M120 X 2.0	165.1	137.9	28.0	564	M6	70
BLM-26	M130 X 2.0	175.0	149.1	31.0	628	M6	70
BLM-28	M140 X 2.0	185.2	160.0	32.5	668	M6	70
BLM-30	M150 X 2.0	195.1	170.9	32.5	685	M6	70
BLM-32	M160 X 3.0	210.1	182.1	36.5	880	M8	100
BLM-34	M170 X 3.0	220.0	193.0	36.5	903	M8	100
BLM-36	M180 X 3.0	230.1	203.2	38.5	970	M8	100
BLM-38	M190 X 3.0	240.0	214.1	40.0	983	M8	100
BLM-40	M200 X 3.0	249.9	226.1	42.0	1060	M8	100

Thread to Face Runout Specifications Available on Page X16

Four (4) Socket Head Cap Screws on Sizes 02 - 14 / Eight (8) Socket Head Cap Screws on Sizes 15 - 40

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

Downloadable 3D & 2D CAD models available
at www.whittet-higgins.com



SHOELOK - NSH SERIES - INCH

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Hardened alloy for high axial loading capacity
- Balanced design for high speed applications
- Prevents assemblies from loosening due to vibration, shock and torque
- Uniform 360 degree thread clamping to center of shaft
- Tangential (X-Axis) access to locking and adjustment of assembly
- Easier and faster to install than traditional locknut and lockwasher
- Eliminates the need for cutting or repairing shaft keyway
- Infinite adjustment and preloading capability
- Does not damage shaft threads when secured
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS Compliant

Applications:

- High-speed balanced assemblies
- High precision assemblies
- Off-road equipment and machinery
- Mining and mineral extraction equipment
- Pulp, paper and steel mill rolls
- Pumps

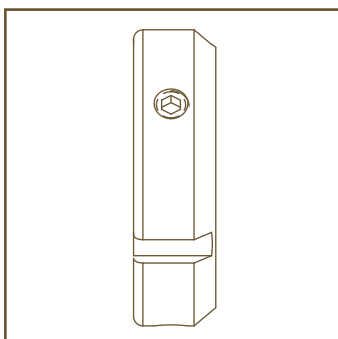
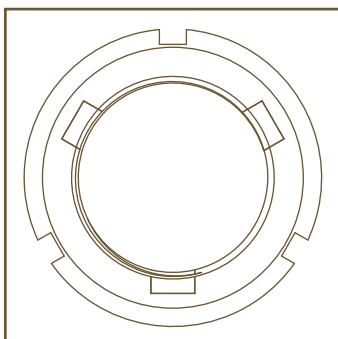
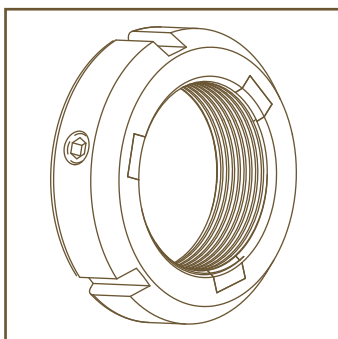
Max Operating Temperature: 300 Deg F

Materials:

Base Threaded Nut - Hardened Alloy

Locking Shoes - Hardened Alloy

Fasteners - Hardened Alloy



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (In-Lbs)
NSH-03	0.664-32	1.120	0.934	0.410	21500	8-32	20
NSH-04	0.781-32	1.370	1.130	0.470	30400	10-24	35
NSH-05	0.969-32	1.560	1.280	0.530	38800	10-24	35
NSH-06	1.173-18	1.750	1.500	0.560	44500	1/4-20	80
NSH-065	1.312-18	2.060	1.810	0.560	50800	1/4-20	80
NSH-07	1.376-18	2.060	1.810	0.560	52600	1/4-20	80
NSH-08	1.563-18	2.250	2.000	0.560	55300	1/4-20	80
NSH-09	1.767-18	2.530	2.280	0.560	61800	1/4-20	80
NSH-10	1.967-18	2.690	2.440	0.630	70100	1/4-20	80
NSH-11	2.157-18	2.970	2.660	0.630	76000	1/4-20	80
NSH-12	2.360-18	3.160	2.840	0.660	82900	1/4-20	80
NSH-13	2.548-18	3.380	3.060	0.720	94100	1/4-20	80
NSH-14	2.751-18	3.630	3.310	0.720	100600	1/4-20	80
NSH-15	2.933-12	3.880	3.560	0.750	109600	1/4-20	80
NSH-16	3.137-12	4.160	3.840	0.750	118700	1/4-20	150
NSH-17	3.340-12	4.410	4.030	0.780	129300	5/16-18	150
NSH-18	3.527-12	4.660	4.280	0.880	150500	5/16-18	150
NSH-19	3.730-12	4.940	4.560	0.910	166400	5/16-18	150
NSH-20	3.918-12	5.190	4.810	0.940	178200	5/16-18	150
NSH-21	4.122-12	5.440	5.000	0.940	186600	5/16-18	150
NSH-22	4.325-12	5.720	5.280	0.970	202300	5/16-18	270
NSH-24	4.716-12	6.130	5.690	1.030	245000	3/8-16	270
NSH-26	5.106-12	6.750	6.190	1.090	287300	3/8-16	270
NSH-28	5.497-12	7.090	6.530	1.190	316000	3/8-16	270
NSH-30	5.888-12	7.690	7.060	1.250	361400	3/8-16	400
NSH-32	6.284-8	8.060	7.440	1.280	377500	7/16-14	400
NSH-34	6.659-8	8.660	8.030	1.340	425400	7/16-14	400
NSH-36	7.066-8	9.060	8.380	1.410	459400	7/16-14	400
NSH-38	7.472-8	9.470	8.780	1.410	467900	7/16-14	400
NSH-40	7.847-8	9.840	9.160	1.500	501300	7/16-14	400

Thread to Face Runout Specifications Available on Page X16

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A3

Engineering & Sales Support: (401) 728-0700



SHOELOK - NSHM SERIES - METRIC

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Hardened alloy for high axial loading capacity
- Balanced design for high speed applications
- Prevents assemblies from loosening due to vibration, shock and torque
- Uniform 360 degree thread clamping to center of shaft
- Tangential (X-Axis) access to locking and adjustment of assembly
- Easier and faster to install than traditional locknut and lockwasher
- Eliminates the need for cutting or repairing shaft keyway
- Infinite adjustment and preloading capability
- Does not damage shaft threads when secured
- Meets and exceeds specifications of ISO 2982-2:2013 (E)
- Manufactured in USA and RohS Compliant

Applications:

- High-speed balanced assemblies
- High precision assemblies
- Off-road equipment and machinery
- Mining and mineral extraction equipment
- Pulp, paper and steel mill rolls
- Pumps

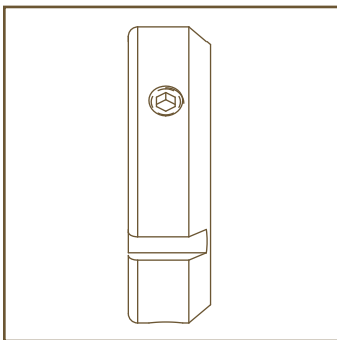
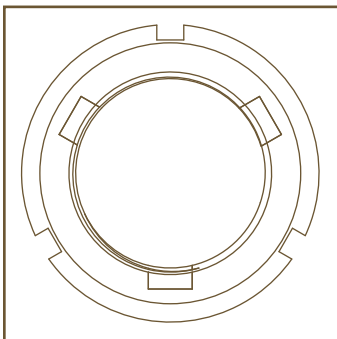
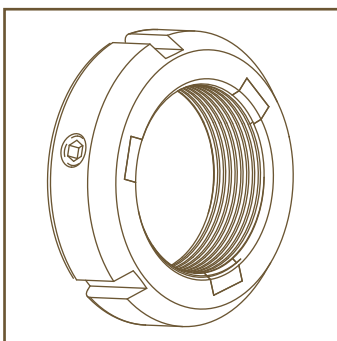
Max Operating Temperature: 300 Deg F

Materials:

Base Threaded Nut - Hardened Alloy

Locking Shoes - Hardened Alloy

Fasteners - Hardened Alloy



Part Number	Thread	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)	Socket Head Cap Screw	Suggested Torque (In-Lbs)
NSHM-03	M17 X 1.0	28.5	23.8	10.3	95	8-32	20
NSHM-04	M20 X 1.0	34.8	28.6	12.2	135	10-24	35
NSHM-05	M25 X 1.5	39.6	32.5	13.5	173	10-24	35
NSHM-06	M30 X 1.5	44.5	38.1	14.2	198	1/4-20	80
NSHM-07	M35 X 1.5	52.3	46.0	14.2	234	1/4-20	80
NSHM-08	M40 X 1.5	57.2	50.8	14.2	246	1/4-20	80
NSHM-09	M45 X 1.5	64.3	57.9	14.2	275	1/4-20	80
NSHM-10	M50 X 1.5	68.3	62.0	16.0	312	1/4-20	80
NSHM-11	M55 X 2.0	75.4	67.6	16.0	338	1/4-20	80
NSHM-12	M60 X 2.0	80.3	72.1	16.8	369	1/4-20	80
NSHM-13	M65 X 2.0	85.9	77.7	18.3	419	1/4-20	80
NSHM-14	M70 X 2.0	92.2	84.1	18.3	448	1/4-20	80
NSHM-15	M75 X 2.0	98.6	90.4	19.1	488	1/4-20	80
NSHM-16	M80 X 2.0	105.7	97.5	19.1	528	1/4-20	80
NSHM-17	M85 X 2.0	112.0	102.4	19.8	575	5/16-18	150
NSHM-18	M90 X 2.0	118.4	108.7	22.4	670	5/16-18	150
NSHM-19	M95 X 2.0	125.5	115.8	23.1	740	5/16-18	150
NSHM-20	M100 X 2.0	131.8	122.2	23.9	793	5/16-18	150
NSHM-21	M105 X 2.0	138.2	127.0	23.9	830	5/16-18	150
NSHM-22	M110 X 2.0	145.3	134.1	24.6	900	5/16-18	150
NSHM-24	M120 X 2.0	155.7	144.5	26.2	1090	3/8-16	270
NSHM-26	M130 X 2.0	171.5	157.2	27.7	1278	3/8-16	270
NSHM-28	M140 X 2.0	180.1	165.9	30.2	1406	3/8-16	270
NSHM-30	M150 X 2.0	195.3	179.3	31.8	1608	3/8-16	270
NSHM-32	M160 X 3.0	204.7	189.0	32.5	1680	7/16-14	400
NSHM-34	M170 X 3.0	220.0	204.0	34.0	1893	7/16-14	400
NSHM-36	M180 X 3.0	230.1	212.9	35.8	2044	7/16-14	400
NSHM-38	M190 X 3.0	240.5	223.0	35.8	2082	7/16-14	400
NSHM-40	M200 X 3.0	249.9	232.7	38.1	2231	7/16-14	400

Thread to Face Runout Specifications Available on Page X16

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A4

Engineering & Sales Support: (401) 728-0700



Benefits & Characteristics:

- Self-locking
- Balanced design for high speed applications
- Prevents assemblies from loosening due to vibration, shock and torque
- Uniform 360 degree thread clamping to center of shaft
- Tangential (X-Axis) access to locking and adjustment of assembly
- Easier and faster to install than traditional locknut and lockwasher
- Eliminates the need for cutting or repairing shaft keyway
- Infinite adjustment and preloading capability
- Does not damage shaft threads when secured
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RohS Compliant

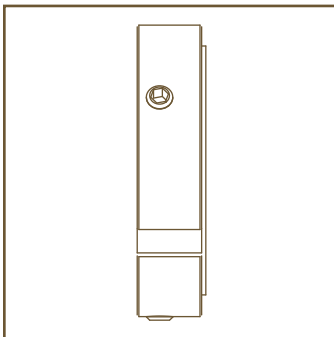
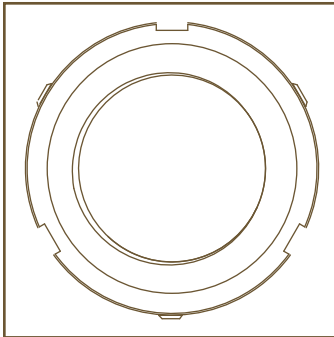
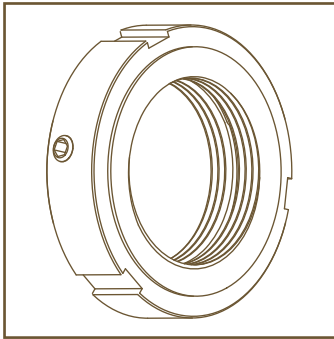
Applications:

- High-speed balanced assemblies
- High precision assemblies
- Off-road equipment and machinery
- Mining and mineral extraction equipment
- Pulp, paper and steel mill rolls
- Pumps

Max Operating Temperature: 300 Deg F

Materials:

Base Threaded Nut - Carbon Steel
Fasteners - Hardened Alloy



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (In-Lbs)
TLN-00	0.391-32	0.875	0.625	0.375	5800	10-32	24
TLN-01	0.469-32	1.000	0.719	0.375	6900	10-32	24
TLN-02	0.586-32	1.125	0.813	0.375	8000	10-32	24
TLN-03	0.664-32	1.125	0.938	0.375	8200	10-32	24
TLN-04	0.781-32	1.375	1.125	0.375	9900	10-32	24
TLN-05	0.969-32	1.563	1.281	0.406	12400	10-32	24
TLN-06	1.173-18	1.750	1.500	0.406	13500	10-32	24
TLN-065	1.312-18	2.063	1.813	0.438	13500	1/4-28	48
TLN-07	1.376-18	2.063	1.813	0.438	17700	1/4-28	48
TLN-08	1.563-18	2.250	2.000	0.438	18700	1/4-28	48
TLN-09	1.767-18	2.531	2.281	0.438	20900	1/4-28	48
TLN-10	1.967-18	2.688	2.438	0.500	24700	1/4-28	48
TLN-11	2.157-18	2.969	2.656	0.500	27600	1/4-28	48
TLN-12	2.360-18	3.156	2.844	0.531	30300	1/4-28	48
TLN-13	2.548-18	3.375	3.063	0.563	34200	1/4-28	48
TLN-14	2.751-18	3.625	3.313	0.563	36500	1/4-28	48
TLN-15	2.933-12	3.875	3.563	0.599	N/A	5/16-18	96

Thread to Face Runout Specifications Available on Page X16



Benefits & Characteristics:

- Self-locking
- Balanced design for high speed applications
- Prevents assemblies from loosening due to vibration, shock and torque
- Uniform 360 degree thread clamping to center of shaft
- Tangential (X-Axis) access to locking and adjustment of assembly
- Easier and faster to install than traditional locknut and lockwasher
- Eliminates the need for cutting or repairing shaft keyway
- Infinite adjustment and preloading capability
- Does not damage shaft threads when secured
- Meets and exceeds specifications of ISO 2982-2:2013 (E)
- Manufactured in USA and RohS Compliant

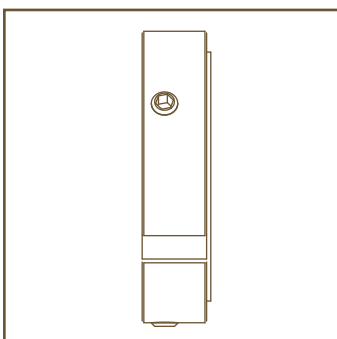
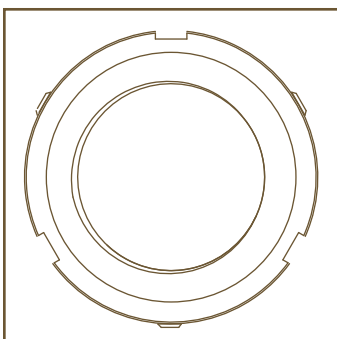
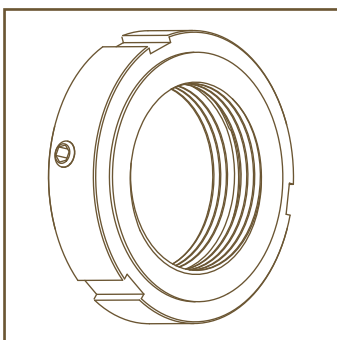
Applications:

- High-speed balanced assemblies
- High precision assemblies
- Off-road equipment and machinery
- Mining and mineral extraction equipment
- Pulp, paper and steel mill rolls
- Pumps

Max Operating Temperature: 300 Deg F

Materials:

Base Threaded Nut - Carbon Steel
Fasteners - Hardened Alloy



Part Number	Thread	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)	Socket Head Cap Screw	Suggested Torque (In-Lbs)
TLM-00	M10 X 0.75	22.2	15.9	9.5	25	10-32	24
TLM-01	M12 X 1.0	25.4	18.3	9.5	30	10-32	24
TLM-02	M15 X 1.0	28.6	20.7	9.5	35	10-32	24
TLM-03	M17 X 1.0	28.6	23.8	9.5	36	10-32	24
TLM-04	M20 X 1.0	34.9	28.6	9.5	44	10-32	24
TLM-05	M25 X 1.5	39.7	32.5	10.3	55	10-32	24
TLM-06	M30 X 1.5	44.5	38.1	10.3	60	10-32	24
TLM-064	M32 X 1.5	52.4	46.1	11.1	62	1/4-28	48
TLM-07	M35 X 1.5	52.4	46.1	11.1	78	1/4-28	48
TLM-08	M40 X 1.5	57.2	50.8	11.1	83	1/4-28	48
TLM-09	M45 X 1.5	64.3	57.9	11.1	93	1/4-28	48
TLM-10	M50 X 1.5	68.3	61.9	12.7	109	1/4-28	48
TLM-11	M55 X 2.0	75.4	67.5	12.7	122	1/4-28	48
TLM-12	M60 X 2.0	80.2	72.2	13.5	134	1/4-28	48
TLM-13	M65 X 2.0	85.7	77.8	14.3	152	1/4-28	48
TLM-14	M70 X 2.0	92.1	84.2	14.3	162	1/4-28	48
TLM-15	M75 X 2.0	98.4	90.5	14.3	185	5/16-18	96

Thread to Face Runout Specifications Available on Page X16



ONE-PIECE CLAMPNUT CNB SERIES - INCH

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Prevents assembly from loosening due to vibration, shock and torque
- Tangential (X-Axis) access to locking and adjusting of assembly
- Easier and faster to install than traditional locknut and lockwasher
- Eliminates the need for cutting or repairing shaft keyway
- Infinite adjustment and preloading capability
- Does not damage shaft threads when secured
- Black oxide coating with wax finish to prevent corrosion
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS Compliant

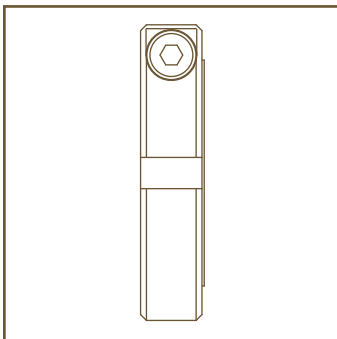
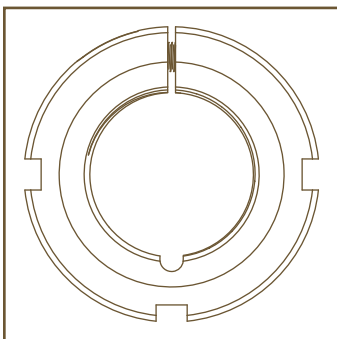
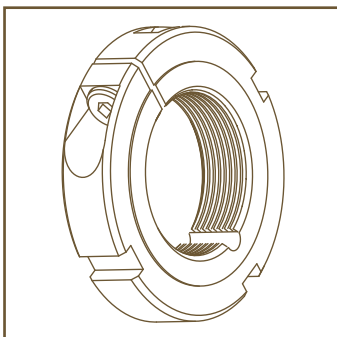
Applications:

- Lower-speed non-balanced assemblies
- Linear ball screws and linear actuators
- Off-road equipment and machinery
- Mining and mineral extraction equipment
- Pump, paper and steel mill rolls

Max Operating Temperature: 300 Deg F

Materials:

Base Threaded Nut - Carbon Steel
Fastener - Hardened Alloy



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (Inch-Lbs)
CNB-00	0.391-32	1.125	0.620	0.385	7200	M4	24
CNB-01	0.469-32	1.125	0.710	0.385	8100	M4	24
CNB-02	0.586-32	1.312	0.810	0.385	9800	M4	24
CNB-03	0.664-32	1.500	0.930	0.510	14900	M6	70
CNB-04	0.781-32	1.750	1.120	0.510	17400	M6	70
CNB-05	0.969-32	1.875	1.280	0.510	19800	M6	70
CNB-06	1.173-18	2.062	1.500	0.510	22100	M6	70
CNB-065	1.312-18	2.375	1.810	0.510	25500	M6	70
CNB-07	1.376-18	2.375	1.810	0.510	25500	M6	70
CNB-08	1.563-18	2.500	2.000	0.510	26600	M6	70
CNB-09	1.767-18	2.688	2.280	0.510	27800	M6	70
CNB-10	1.967-18	3.000	2.430	0.510	31300	M6	70
CNB-11	2.157-18	3.375	2.650	0.635	44500	M8	150
CNB-12	2.360-18	3.625	2.840	0.635	47400	M8	150
CNB-13	2.548-18	3.875	3.060	0.635	50400	M8	150
CNB-14	2.751-18	4.125	3.310	0.635	53300	M8	150
CNB-15	2.933-12	4.250	3.560	0.708	59000	M8	150
CNB-16	3.137-12	4.500	3.840	0.708	61900	M8	150
CNB-17	3.340-12	4.750	4.030	0.708	63800	M8	150
CNB-18	3.527-12	4.875	4.280	0.708	64600	M8	150
CNB-19	3.730-12	5.313	4.560	0.832	85800	M10	300
CNB-20	3.918-12	5.500	4.810	0.832	87600	M10	300
CNB-21	4.122-12	5.750	5.000	0.832	90900	M10	300
CNB-22	4.325-12	6.000	5.280	0.832	94300	M10	300
CNB-24	4.716-12	6.375	5.690	0.832	96900	M10	300
CNB-26	5.106-12	6.875	6.180	0.956	119800	M12	510
CNB-28	5.497-12	7.250	6.530	0.956	122400	M12	510
CNB-30	5.888-12	7.750	7.060	0.956	125800	M12	510
CNB-32	6.284-8	8.000	7.430	0.956	126700	M12	510
CNB-34	6.659-8	8.500	8.030	0.956	134700	M12	510
CNB-36	7.066-8	9.000	8.375	1.000	151300	M12	510
CNB-38	7.472-8	9.500	8.781	1.000	153100	M12	510
CNB-40	7.847-8	9.750	9.156	1.000	154300	M12	510

Thread to Face Runout Specifications Available on Page X16

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Engineering & Sales Support: (401) 728-0700



ONE-PIECE CLAMPNUT CNM SERIES - METRIC

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Prevents assembly from loosening due to vibration, shock and torque
- Tangential (X-Axis) access to locking and adjusting of assembly
- Easier and faster to install than traditional locknut and lockwasher
- Eliminates the need for cutting or repairing shaft keyway
- Infinite adjustment and preloading capability
- Does not damage shaft threads when secured
- Blackoxide coating with wax finish to prevent corrosion
- Meets and exceeds specifications of ISO 2982-2:2013(E)
- Manufactured in USA and RoHS Compliant

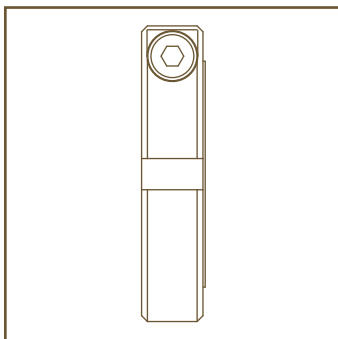
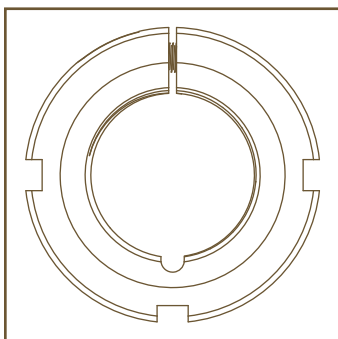
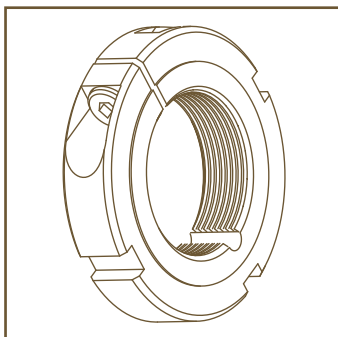
Applications:

- Lower-speed non-balanced assemblies
- Linear ball screws and linear actuators
- Off-road equipment and machinery
- Mining and mineral extraction equipment
- Pump, paper and steel mill rolls

Max Operating Temperature: 300 Deg F

Materials:

Base Threaded Nut - Carbon Steel
Fastener - Hardened Alloy



Part Number	Thread	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)	Socket Head Cap Screw	Suggested Torque (N-m)
CNM-00	M10 X 0.75	28.6	15.7	9.8	32	M4	2.7
CNM-01	M12 X 1.0	28.6	18.0	9.8	36	M4	2.7
CNM-02	M15 X 1.0	33.3	20.6	9.8	44	M4	2.7
CNM-03	M17 X 1.0	38.1	23.6	13.0	66	M6	7.9
CNM-04	M20 X 1.0	44.5	28.4	13.0	77	M6	7.9
CNM-044	M22 X 1.0	47.6	32.5	13.0	88	M6	7.9
CNM-05	M25 X 1.5	47.6	32.5	13.0	88	M6	7.9
CNM-056	M28 X 1.5	52.4	38.1	13.0	98	M6	7.9
CNM-06	M30 X 1.5	52.4	38.1	13.0	98	M6	7.9
CNM-064	M32 X 1.5	60.3	46.0	13.0	113	M6	7.9
CNM-07	M35 X 1.5	60.3	46.0	13.0	113	M6	7.9
CNM-08	M40 X 1.5	63.5	50.8	13.0	118	M6	7.9
CNM-09	M45 X 1.5	68.1	57.9	13.0	124	M6	7.9
CNM-10	M50 X 1.5	76.2	61.7	13.0	139	M6	7.9
CNM-11	M55 X 2.0	82.6	67.3	18.0	210	M8	17.0
CNM-12	M60 X 2.0	88.9	72.1	18.0	224	M8	17.0
CNM-13	M65 X 2.0	95.3	77.7	18.0	239	M8	17.0
CNM-14	M70 X 2.0	101.6	84.1	18.0	253	M8	17.0
CNM-15	M75 X 2.0	108.0	90.4	18.0	267	M8	17.0
CNM-16	M80 X 2.0	114.3	97.5	18.0	280	M8	17.0
CNM-17	M85 X 2.0	120.7	102.4	18.0	288	M8	17.0
CNM-18	M90 X 2.0	123.7	108.7	18.0	292	M8	17.0
CNM-19	M95 X 2.0	134.9	115.8	21.1	382	M10	34.0
CNM-20	M100 X 2.0	139.7	122.2	21.1	390	M10	34.0
CNM-21	M105 X 2.0	146.1	127.0	21.1	405	M10	34.0
CNM-22	M110 X 2.0	152.4	134.1	21.1	420	M10	34.0
CNM-24	M120 X 2.0	161.8	144.5	21.1	431	M10	34.0
CNM-26	M130 X 2.0	174.5	157.0	24.3	533	M12	34.0
CNM-28	M140 X 2.0	184.2	165.9	24.3	545	M12	34.0

(Table Continued on Next Page)

Thread to Face Runout Specifications Available on Page X16

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A8

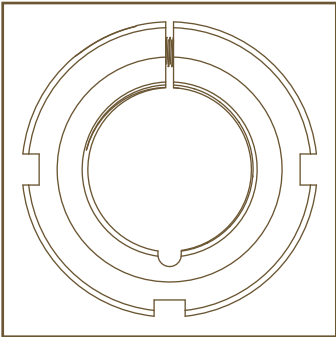
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ONE-PIECE CLAMPNUT CNM SERIES - METRIC

Mechanical Self-Locking

(Continued from Previous Page)

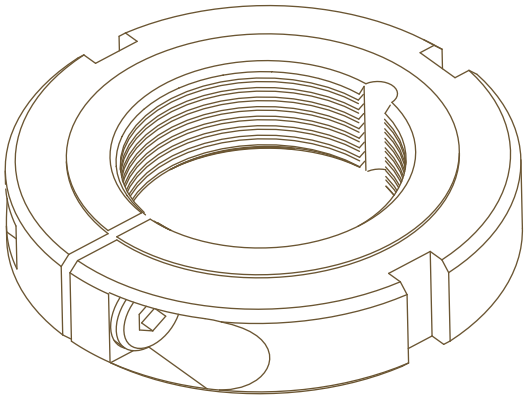


Part Number	Thread	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)	Socket Head Cap Screw	Suggested Torque (N-m)
CNM30	M150 X 2.0	196.9	179.3	24.3	560	M12	57.0
CNM-32	M160 X 3.0	203.2	188.7	24.3	564	M12	57.0
CNM-34	M170 X 3.0	215.9	204.0	24.3	599	M12	57.0
CNM-36	M180 X 3.0	228.6	212.7	25.4	673	M12	57.0
CNM-38	M190 X 3.0	241.3	223.0	25.4	681	M12	57.0
CNM-40	M200 X 3.0	247.7	232.6	25.4	687	M12	57.0

Thread to Face Runout Specifications Available on Page X16

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

Whittet-Higgins Clamp Collars are manufactured in a multitude of sizes, materials and configurations to address our customers specific applications. If you cannot find the correct product, need further help selecting a product for a new application, or need one of the standard products modified for your specialized application, please contact one of our engineers at (401) 728-0700



whittet-higgins company



ONE-PIECE CLAMPNUT CNC SERIES - COARSE

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Reduces chance of cross threading during installation
- Reduces potential assembly seizure in cold temperature applications
- Reduces potential assembly seizure in corrosive environments
- Less prone to strip when threaded onto lower strength materials
- Easier and faster to install than traditional locknut and lockwasher
- Prevents assembly from loosening due to vibration, shock and torque
- Tangential (X-Axis) access to locking and adjusting of assembly
- Infinite adjustment and preloading capability
- Does not damage shaft threads when secured
- Black oxide coating with wax finish to prevent corrosion
- Manufactured in USA and RoHS Compliant

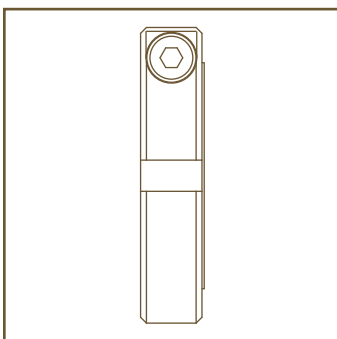
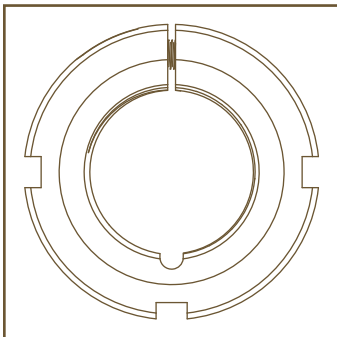
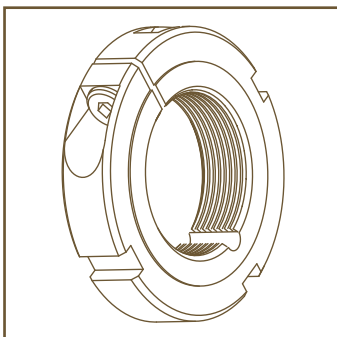
Applications:

- Lower-speed, non-balanced assemblies
- Linear ball screws and linear actuators
- Off-road equipment and machinery
- Mining and mineral extraction equipment
- Pump, paper and steel mill rolls

Max Operating Temperature: 300 Deg F

Materials:

Base Threaded Nut - Carbon Steel
Fastener - Hardened Alloy



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (Inch-Lbs)
CNC2-32	8-32	0.625	0.406	0.281	1200	4-40	14
CNC3-24	10-24	0.625	0.406	0.281	1400	4-40	14
CNC4-20	0.250-20	0.625	0.406	0.281	1700	4-40	14
CNC5-18	0.312-18	0.688	0.469	0.281	2000	4-40	14
CNC6-16	0.375-16	0.875	0.594	0.344	3100	6-32	25
CNC7-14	0.438-14	0.938	0.656	0.344	3400	6-32	25
CNC8-13	0.500-13	1.125	0.781	0.437	4800	10-32	60
CNC10-11	0.625-11	1.313	0.922	0.437	5700	10-32	60
CNC12-10	0.750-10	1.500	1.063	0.500	8200	1/4-28	150
CNC14-9	0.875-9	1.625	1.188	0.500	9100	1/4-28	150
CNC16-8	1.000-8	1.750	1.313	0.500	9900	1/4-28	150
CNC18-7	1.125-7	1.875	1.438	0.500	10600	1/4-28	150
CNC20-7	1.250-7	2.063	1.625	0.500	11600	1/4-28	150
CNC22-6	1.375-6	2.250	1.719	0.563	14200	1/4-28	150
CNC24-6	1.500-6	2.375	1.844	0.563	14900	1/4-28	150

Thread to Face Runout Specifications Available on Page X16

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

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A9

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ONE-PIECE CLAMPNUT CNC SERIES - STAINLESS

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Corrosion resistant stainless steel
- Reduces chance of cross threading during installation
- Reduces potential assembly seizure in cold temperature applications
- Reduces potential assembly seizure in corrosive environments
- Less prone to strip when threaded onto lower strength materials
- Easier and faster to install than traditional locknut and lockwasher
- Prevents assembly from loosening due to vibration, shock and torque
- Tangential (X-Axis) access to locking and adjusting of assembly
- Infinite adjustment and preloading capability
- Does not damage shaft threads when secured
- Manufactured in USA and RoHS Compliant

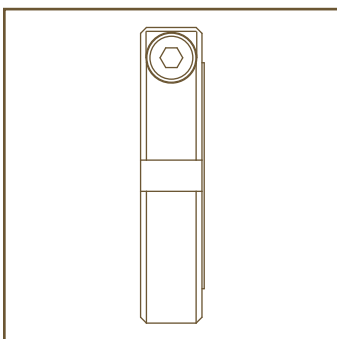
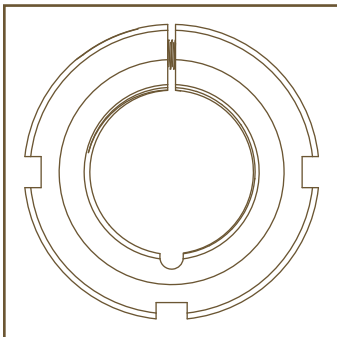
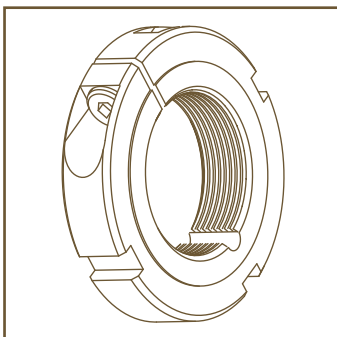
Applications:

- Corrosive environments
- Lower-speed, non-balanced assemblies
- Linear ball screws and linear actuators
- Off-road equipment and machinery
- Pump, paper and steel mill rolls

Max Operating Temperature: 300 Deg F

Materials:

Base Threaded Nut - Stainless Steel
Fastener - Stainless Steel



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (Inch-Lbs)
CNC2-32S	8-32	0.625	0.406	0.281	1000	4-40	10
CNC3-24S	10-24	0.625	0.406	0.281	1100	4-40	10
CNC4-20S	0.250-20	0.625	0.406	0.281	1400	4-40	10
CNC5-18S	0.312-18	0.688	0.469	0.281	1600	4-40	10
CNC6-16S	0.375-16	0.875	0.594	0.344	2500	6-32	18
CNC7-14S	0.438-14	0.938	0.656	0.344	2700	6-32	18
CNC8-13S	0.500-13	1.125	0.781	0.437	3800	10-32	42
CNC10-11S	0.625-11	1.313	0.922	0.437	4600	10-32	42
CNC12-10S	0.750-10	1.500	1.063	0.500	6600	1/4-28	105
CNC14-9S	0.875-9	1.625	1.188	0.500	7300	1/4-28	105
CNC16-8S	1.000-8	1.750	1.313	0.500	7900	1/4-28	105
CNC18-7S	1.125-7	1.875	1.438	0.500	8500	1/4-28	105
CNC20-7S	1.250-7	2.063	1.625	0.500	9300	1/4-28	105
CNC22-6S	1.375-6	2.250	1.719	0.563	11400	1/4-28	105
CNC24-6S	1.500-6	2.375	1.844	0.563	11900	1/4-28	105

Thread to Face Runout Specifications Available on Page X16

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A10

Engineering & Sales Support: (401) 728-0700



ONE-PIECE CLAMPNUT CNC SERIES - ALUMINUM

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Lightweight aluminum alloy
- Reduces chance of cross threading during installation
- Reduces potential assembly seizure in cold temperature applications
- Reduces potential assembly seizure in corrosive environments
- Less prone to strip when threaded onto lower strength materials
- Easier and faster to install than traditional locknut and lockwasher
- Prevents assembly from loosening due to vibration, shock and torque
- Tangential (X-Axis) access to locking and adjusting of assembly
- Infinite adjustment and preloading capability
- Does not damage shaft threads when secured
- Manufactured in USA and RoHS Compliant

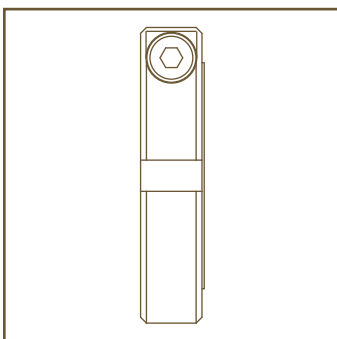
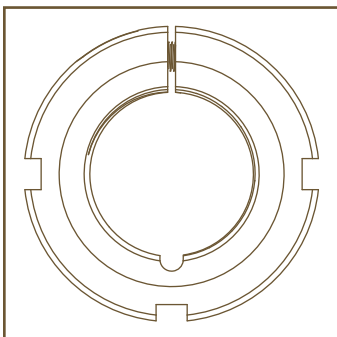
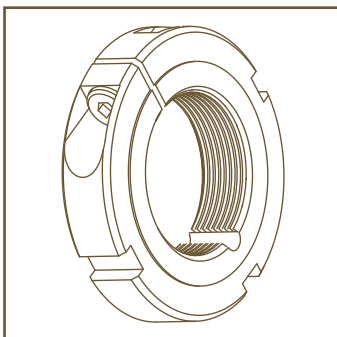
Applications:

- Corrosive environments
- Lower-speed, non-balanced assemblies
- Linear ball screws and linear actuators
- Off-road equipment and machinery
- Pump, paper and steel mill rolls

Max Operating Temperature: 225 Deg F

Materials:

Base Threaded Nut - Aluminum Alloy
Fastener - Hardened Alloy



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (Inch-Lbs)
CNC2-32A	8-32	0.625	0.406	0.281	1000	4-40	14
CNC3-24A	10-24	0.625	0.406	0.281	1100	4-40	14
CNC4-20A	0.250-20	0.625	0.406	0.281	1400	4-40	14
CNC5-18A	0.312-18	0.688	0.469	0.281	1600	4-40	14
CNC6-16A	0.375-16	0.875	0.594	0.344	2500	6-32	25
CNC7-14A	0.438-14	0.938	0.656	0.344	2700	6-32	25
CNC8-13A	0.500-13	1.125	0.781	0.437	3800	10-32	60
CNC10-11A	0.625-11	1.313	0.922	0.437	4600	10-32	60
CNC12-10A	0.750-10	1.500	1.063	0.500	6600	1/4-28	150
CNC14-9A	0.875-9	1.625	1.188	0.500	7300	1/4-28	150
CNC16-8A	1.000-8	1.750	1.313	0.500	7900	1/4-28	150
CNC18-7A	1.125-7	1.875	1.438	0.500	8500	1/4-28	150
CNC20-7A	1.250-7	2.063	1.625	0.500	9300	1/4-28	150
CNC22-6A	1.375-6	2.250	1.719	0.563	11400	1/4-28	150
CNC24-6A	1.500-6	2.375	1.844	0.563	11900	1/4-28	150

Thread to Face Runout Specifications Available on Page X16

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A11

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ONE-PIECE CLAMPNUT CNF SERIES - FINE

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Greater axial strength than CNC series with coarse threads
- Finer assembly adjustment than CNC series with coarse threads
- Infinite adjustment and preloading capability
- Prevents assembly from loosening due to vibration, shock and torque
- Tangential (X-Axis) access to locking and adjusting of assembly
- Easier and faster to install than traditional locknut and lockwasher
- Eliminates the need for cutting or repairing shaft keyway
- Does not damage shaft threads when secured
- Black oxide coating with wax finish to prevent corrosion
- Manufactured in USA and RoHS Compliant

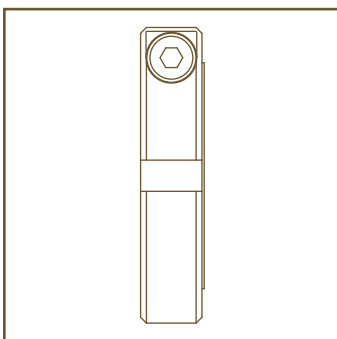
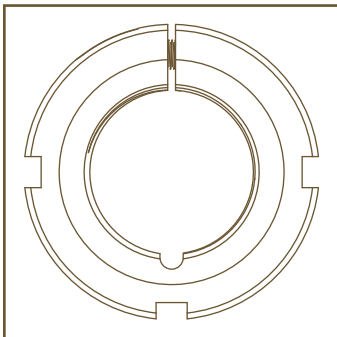
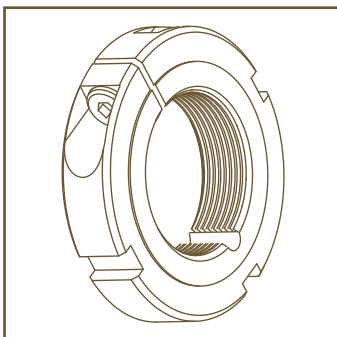
Applications:

- Lower-speed, non-balanced assemblies
- Linear ball screws and linear actuators
- Off-road equipment and machinery
- Mining and mineral extraction equipment
- Pump, paper and steel mill rolls

Max Operating Temperature: 300 Deg F

Materials:

Base Threaded Nut - Carbon Steel
Fastener - Hardened Alloy



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (Inch-Lbs)
CNF3-32	10-32	0.625	0.406	0.281	1600	4-40	14
CNF4-28	0.250-28	0.625	0.406	0.281	1900	4-40	14
CNF5-24	0.312-24	0.688	0.469	0.281	2300	4-40	14
CNF6-24	0.375-24	0.875	0.594	0.344	3500	6-32	25
CNF7-20	0.437-20	0.938	0.656	0.344	3900	6-32	25
CNF8-20	0.500-20	1.125	0.781	0.437	5400	10-32	60
CNF10-18	0.625-18	1.313	0.922	0.437	6500	10-32	60
CNF12-16	0.750-16	1.500	1.063	0.500	9400	1/4-28	150
CNF14-14	0.875-14	1.625	1.188	0.500	10400	1/4-28	150
CNF16-12	1.000-12	1.750	1.313	0.500	11200	1/4-28	150
CNF16-14	1.000-14	1.750	1.313	0.500	11500	1/4-28	150
CNF18-12	1.125-12	1.875	1.438	0.500	12000	1/4-28	150
CNF20-12	1.250-12	2.063	1.625	0.500	13200	1/4-28	150
CNF22-12	1.375-12	2.250	1.719	0.563	16200	1/4-28	150
CNF24-12	1.500-12	2.375	1.844	0.563	16900	1/4-28	150
CNF32-12	2.000-12	3.000	2.469	0.625	23200	5/16-24	260

Thread to Face Runout Specifications Available on Page X16

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

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A12

Engineering & Sales Support: (401) 728-0700

ONE-PIECE CLAMPNUT CNF SERIES - STAINLESS

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Corrosion resistant stainless steel
- Greater axial strength than CNC series with coarse threads
- Finer assembly adjustment than CNC series with coarse threads
- Infinite adjustment and preloading capability
- Prevents assembly from loosening due to vibration, shock and torque
- Tangential (X-Axis) access to locking and adjusting of assembly
- Easier and faster to install than traditional locknut and lockwasher
- Eliminates the need for cutting or repairing shaft keyway
- Does not damage shaft threads when secured
- Manufactured in USA and RoHS Compliant

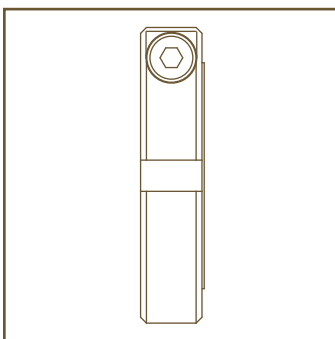
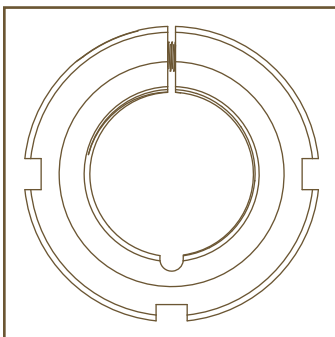
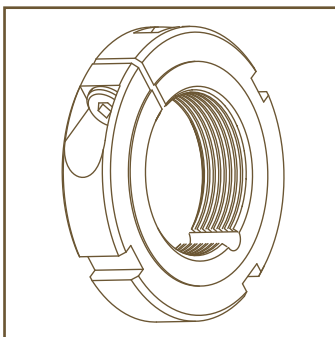
Applications:

- Corrosive environments
- Lower-speed, non-balanced assemblies
- Linear ball screws and linear actuators
- Off-road equipment and machinery
- Pump, paper and steel mill rolls

Max Operating Temperature: 300 Deg F

Materials:

Base Threaded Nut - Stainless Steel
Fastener - Stainless Steel



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (Inch-Lbs)
CNF3-32S	10-32	0.625	0.406	0.281	1200	4-40	10
CNF4-28S	0.250-28	0.625	0.406	0.281	1500	4-40	10
CNF5-24S	0.312-24	0.688	0.469	0.281	1800	4-40	10
CNF6-24S	0.375-24	0.875	0.594	0.344	2800	6-32	18
CNF7-20S	0.437-20	0.938	0.656	0.344	3100	6-32	18
CNF8-20S	0.500-20	1.125	0.781	0.437	4300	10-32	42
CNF10-18S	0.625-18	1.313	0.922	0.437	5200	10-32	42
CNF12-16S	0.750-16	1.500	1.063	0.500	7500	1/4-28	105
CNF14-14S	0.875-14	1.625	1.188	0.500	8300	1/4-28	105
CNF16-12S	1.000-12	1.750	1.313	0.500	9000	1/4-28	105
CNF16-14S	1.000-14	1.750	1.313	0.500	9200	1/4-28	105
CNF18-12S	1.125-12	1.875	1.438	0.500	9600	1/4-28	105
CNF20-12S	1.250-12	2.063	1.625	0.500	10500	1/4-28	105
CNF22-12S	1.375-12	2.250	1.719	0.563	12900	1/4-28	105
CNF24-12S	1.500-12	2.375	1.844	0.563	13500	1/4-28	105
CNF32-12S	2.000-12	3.000	2.469	0.625	18500	5/16-24	182

Thread to Face Runout Specifications Available on Page X16

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

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A13

Engineering & Sales Support: (401) 728-0700



ONE-PIECE CLAMPNUT CNF SERIES - ALUMINUM

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Lightweight aluminum alloy
- Greater axial strength than CNC series with coarse threads
- Finer assembly adjustment than CNC series with coarse threads
- Infinite adjustment and preloading capability
- Prevents assembly from loosening due to vibration, shock and torque
- Tangential (X-Axis) access to locking and adjusting of assembly
- Easier and faster to install than traditional locknut and lockwasher
- Eliminates the need for cutting or repairing shaft keyway
- Does not damage shaft threads when secured
- Manufactured in USA and RoHS Compliant

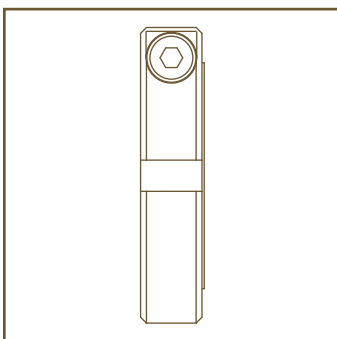
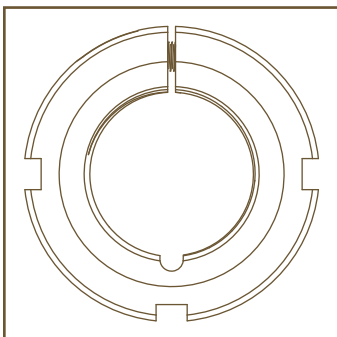
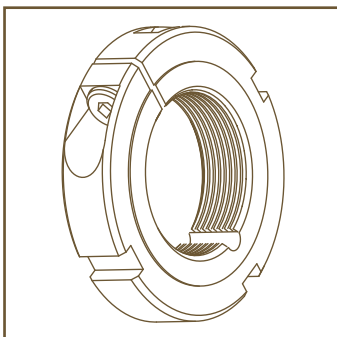
Applications:

- Corrosive environments
- Lower-speed, non-balanced assemblies
- Linear ball screws and linear actuators
- Off-road equipment and machinery
- Pump, paper and steel mill rolls

Max Operating Temperature: 225 Deg F

Materials:

Base Threaded Nut - Aluminum Alloy
Fastener - Hardened Alloy



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (Inch-Lbs)
CNF3-32A	10-32	0.625	0.406	0.281	1200	4-40	14
CNF4-28A	0.250-28	0.625	0.406	0.281	1500	4-40	14
CNF5-24A	0.312-24	0.688	0.469	0.281	1800	4-40	14
CNF6-24A	0.375-24	0.875	0.594	0.344	2800	6-32	25
CNF7-20A	0.437-20	0.938	0.656	0.344	3100	6-32	25
CNF8-20A	0.500-20	1.125	0.781	0.437	4300	10-32	60
CNF10-18A	0.625-18	1.313	0.922	0.437	5200	10-32	60
CNF12-16A	0.750-16	1.500	1.063	0.500	7500	1/4-28	150
CNF14-14A	0.875-14	1.625	1.188	0.500	8300	1/4-28	150
CNF16-12A	1.000-12	1.750	1.313	0.500	9000	1/4-28	150
CNF16-14A	1.000-14	1.750	1.313	0.500	9200	1/4-28	150
CNF18-12A	1.125-12	1.875	1.438	0.500	9600	1/4-28	150
CNF20-12A	1.250-12	2.063	1.625	0.500	10500	1/4-28	150
CNF22-12A	1.375-12	2.250	1.719	0.563	12900	1/4-28	150
CNF24-12A	1.500-12	2.375	1.844	0.563	13500	1/4-28	150
CNF32-12A	2.000-12	3.000	2.469	0.625	18500	5/16-24	260

Thread to Face Runout Specifications Available on Page X16

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

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A14

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ONE-PIECE CLAMPNUT CNS SERIES - 16 TPI

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Provides finer adjustment and preloading in larger diameters
- Finer thread pitch provides greater axial loading capacity
- Prevents assembly from loosening due to vibration, shock and torque
- Tangential (X-Axis) access to locking and adjusting of assembly
- Easier and faster to install than traditional locknut and lockwasher
- Eliminates the need for cutting or repairing shaft keyway
- Does not damage shaft threads when secured
- Black oxide coating with wax finish to prevent corrosion
- Manufactured in USA and RoHS Compliant

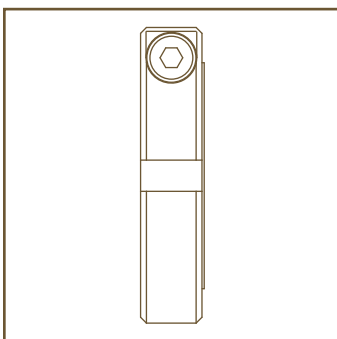
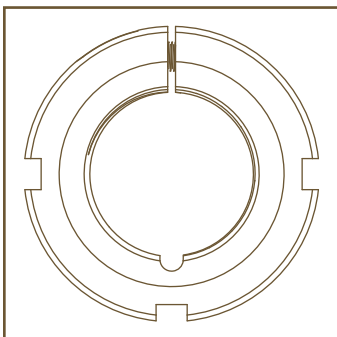
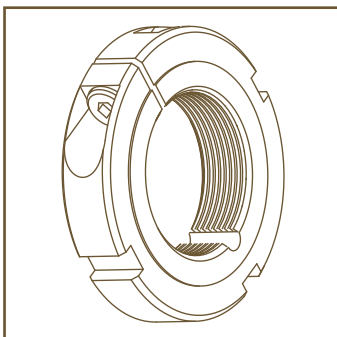
Applications:

- Lower-speed, non-balanced assemblies
- Linear ball screws and linear actuators
- Off-road equipment and machinery
- Mining and mineral extraction equipment
- Pump, paper and steel mill rolls

Max Operating Temperature: 300 Deg F

Materials:

Base Threaded Nut - Carbon Steel
Fastener - Hardened Alloy



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (Inch-Lbs)
CNS14-16	0.875-16	1.625	1.188	0.500	10800	1/4-28	150
CNS16-16	1.000-16	1.750	1.313	0.500	11700	1/4-28	150
CNS18-16	1.125-16	1.875	1.438	0.500	12500	1/4-28	150
CNS20-16	1.250-16	2.063	1.625	0.500	13700	1/4-28	150
CNS22-16	1.375-16	2.250	1.719	0.563	16800	1/4-28	150
CNS24-16	1.500-16	2.375	1.844	0.563	17600	1/4-28	150
CNS26-16	1.625-16	2.750	1.969	0.625	21500	5/16-24	260
CNS28-16	1.750-16	2.750	2.219	0.625	22600	5/16-24	260
CNS30-16	1.875-16	2.875	2.344	0.625	23400	5/16-24	260
CNS32-16	2.000-16	3.000	2.469	0.625	24100	5/16-24	260
CNS36-16	2.250-16	3.250	2.719	0.625	25500	5/16-24	260
CNS40-16	2.500-16	3.500	2.969	0.625	26600	5/16-24	260
CNS44-16	2.750-16	3.750	3.219	0.625	27600	5/16-24	260
CNS48-16	3.000-16	4.000	3.469	0.625	28500	5/16-24	260

Thread to Face Runout Specifications Available on Page X16

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A15

Engineering & Sales Support: (401) 728-0700

ONE-PIECE CLAMPNUT CNS SERIES - STAINLESS

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Corrosion resistant stainless steel
- Provides finer adjustment and preloading in larger diameters
- Finer thread pitch provides greater axial loading capacity
- Prevents assembly from loosening due to vibration, shock and torque
- Tangential (X-Axis) access to locking and adjusting of assembly
- Easier and faster to install than traditional locknut and lockwasher
- Eliminates the need for cutting or repairing shaft keyway
- Does not damage shaft threads when secured
- Manufactured in USA and RoHS Compliant

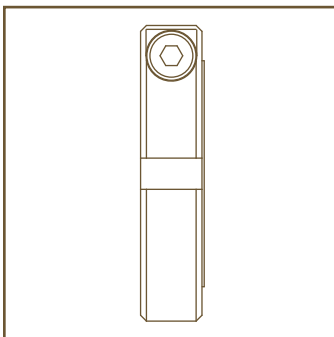
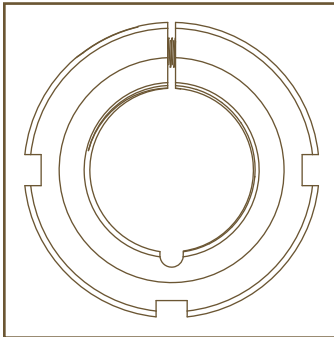
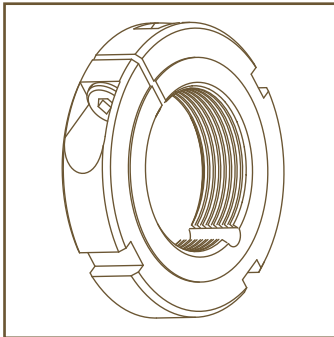
Applications:

- Corrosive environments
- Lower-speed, non-balanced assemblies
- Linear ball screws and linear actuators
- Off-road equipment and machinery
- Pump, paper and steel mill rolls

Max Operating Temperature: 300 Deg F

Materials:

Base Threaded Nut - Stainless Steel
Fastener - Stainless Steel



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (Inch-Lbs)
CNS14-16S	0.875-16	1.625	1.188	0.500	8600	1/4-28	105
CNS16-16S	1.000-16	1.750	1.313	0.500	9300	1/4-28	105
CNS18-16S	1.125-16	1.875	1.438	0.500	10000	1/4-28	105
CNS20-16S	1.250-16	2.063	1.625	0.500	10900	1/4-28	105
CNS22-16S	1.375-16	2.250	1.719	0.563	13400	1/4-28	105
CNS24-16S	1.500-16	2.375	1.844	0.563	14000	1/4-28	105
CNS26-16S	1.625-16	2.750	1.969	0.625	17200	5/16-24	182
CNS28-16S	1.750-16	2.750	2.219	0.625	18000	5/16-24	182
CNS30-16S	1.875-16	2.875	2.344	0.625	18700	5/16-24	182
CNS32-16S	2.000-16	3.000	2.469	0.625	19200	5/16-24	182
CNS36-16S	2.250-16	3.250	2.719	0.625	20400	5/16-24	182
CNS40-16S	2.500-16	3.500	2.969	0.625	21200	5/16-24	182
CNS44-16S	2.750-16	3.750	3.219	0.625	22000	5/16-24	182
CNS48-16S	3.000-16	4.000	3.469	0.625	22800	5/16-24	182

Thread to Face Runout Specifications Available on Page X16

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A16

Engineering & Sales Support: (401) 728-0700



ONE-PIECE CLAMPNUT CNS SERIES - ALUMINUM

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Lightweight aluminum alloy
- Provides finer adjustment and preloading in larger diameters
- Finer thread pitch provides greater axial loading capacity
- Prevents assembly from loosening due to vibration, shock and torque
- Tangential (X-Axis) access to locking and adjusting of assembly
- Easier and faster to install than traditional locknut and lockwasher
- Eliminates the need for cutting or repairing shaft keyway
- Does not damage shaft threads when secured
- Manufactured in USA and RoHS Compliant

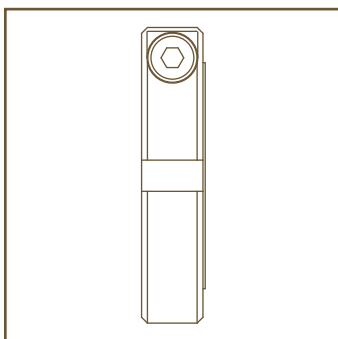
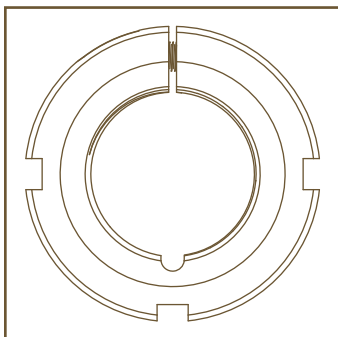
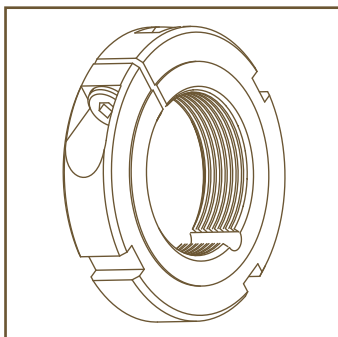
Applications:

- Corrosive environments
- Lower-speed, non-balanced assemblies
- Linear ball screws and linear actuators
- Off-road equipment and machinery
- Pump, paper and steel mill rolls

Max Operating Temperature: 225 Deg F

Materials:

Base Threaded Nut - Aluminum Alloy
Fastener - Hardened Alloy



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (Inch-Lbs)
CNS14-16A	0.875-16	1.625	1.188	0.500	8600	1/4-28	150
CNS16-16A	1.000-16	1.750	1.313	0.500	9300	1/4-28	150
CNS18-16A	1.125-16	1.875	1.438	0.500	10000	1/4-28	150
CNS20-16A	1.250-16	2.063	1.625	0.500	10900	1/4-28	150
CNS22-16A	1.375-16	2.250	1.719	0.563	13400	1/4-28	150
CNS24-16A	1.500-16	2.375	1.844	0.563	14000	1/4-28	150
CNS26-16A	1.625-16	2.750	1.969	0.625	17200	5/16-24	260
CNS28-16A	1.750-16	2.750	2.219	0.625	18000	5/16-24	260
CNS30-16A	1.875-16	2.875	2.344	0.625	18700	5/16-24	260
CNS32-16A	2.000-16	3.000	2.469	0.625	19200	5/16-24	260
CNS36-16A	2.250-16	3.250	2.719	0.625	20400	5/16-24	260
CNS40-16A	2.500-16	3.500	2.969	0.625	21200	5/16-24	260
CNS44-16A	2.750-16	3.750	3.219	0.625	22000	5/16-24	260
CNS48-16A	3.000-16	4.000	3.469	0.625	22800	5/16-24	260

Thread to Face Runout Specifications Available on Page X16

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A17

Engineering & Sales Support: (401) 728-0700





TWO-PIECE SPLITNUT SNC SERIES - COARSE

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Assembles onto shaft without removing other existing power transmission components
- Reduces chance of cross threading during installation
- Reduces potential assembly seizure in cold temperature applications
- Reduces potential assembly seizure in corrosive environments
- Less prone to strip when threaded onto lower strength materials
- Splitnut design provides increased assembly holding power
- Tangential (X-Axis) access to locking and adjusting of assembly
- Easier and faster to install than traditional locknut and lockwasher
- Eliminates the need for cutting or repairing shaft keyway
- Does not damage shaft threads when secured
- Black oxide coating with wax finish to prevent corrosion
- Manufactured in USA and RoHS Compliant

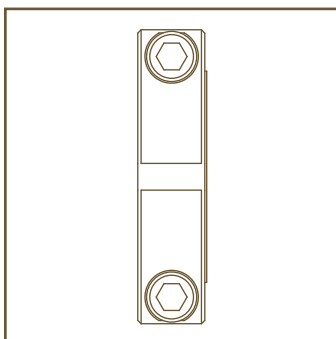
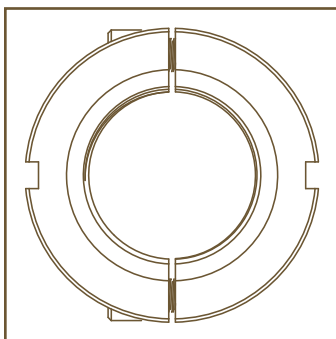
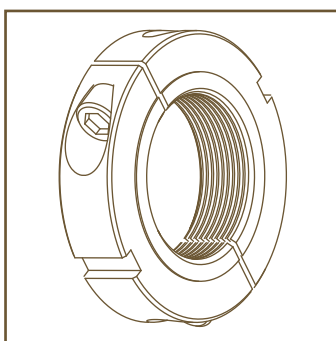
Applications:

- Lower-speed, non-balanced assemblies
- Linear ball screws and linear actuators
- Off-road equipment and machinery
- Mining and mineral extraction equipment
- Pump, paper and steel mill rolls

Max Operating Temperature: 300 Deg F

Materials:

Base Threaded Nut - Carbon Steel
Fastener - Hardened Alloy



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (Inch-Lbs)
SNC2-32	8-32	0.625	0.406	0.281	1250	4-40	14
SNC3-24	10-24	0.625	0.406	0.281	1450	4-40	14
SNC4-20	0.250-20	0.625	0.406	0.281	1750	4-40	14
SNC5-18	0.3125-18	0.688	0.469	0.281	2100	4-40	14
SNC6-16	0.375-16	0.875	0.594	0.344	3200	6-32	25
SNC7-14	0.4375-14	0.938	0.656	0.344	3500	6-32	25
SNC8-13	0.500-13	1.125	0.781	0.437	5000	10-32	60
SNC10-11	0.625-11	1.313	0.922	0.437	5900	10-32	60
SNC12-10	0.750-10	1.500	1.063	0.500	8600	1/4-28	150
SNC14-9	0.875-9	1.625	1.188	0.500	9500	1/4-28	150
SNC16-8	1.000-8	1.750	1.313	0.500	10300	1/4-28	150
SNC18-7	1.125-7	1.875	1.438	0.500	11100	1/4-28	150
SNC20-7	1.250-7	2.063	1.625	0.500	12100	1/4-28	150
SNC22-6	1.375-6	2.250	1.719	0.563	14900	1/4-28	150
SNC24-6	1.500-6	2.375	1.844	0.563	15600	1/4-28	150

Thread to Face Runout Specifications Available on Page X16

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A18

Engineering & Sales Support: (401) 728-0700

TWO-PIECE SPLITNUT SNC SERIES - STAINLESS

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Corrosion resistant stainless steel
- Assembles onto shaft without removing other existing power transmission components
- Reduces chance of cross threading during installation
- Reduces potential assembly seizure in cold temperature applications
- Reduces potential assembly seizure in corrosive environments
- Less prone to strip when threaded onto lower strength materials
- Splitnut design provides increased assembly holding power
- Tangential (X-Axis) access to locking and adjusting of assembly
- Easier and faster to install than traditional locknut and lockwasher
- Eliminates the need for cutting or repairing shaft keyway
- Does not damage shaft threads when secured
- Manufactured in USA and RoHS Compliant

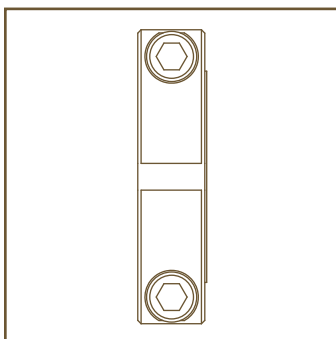
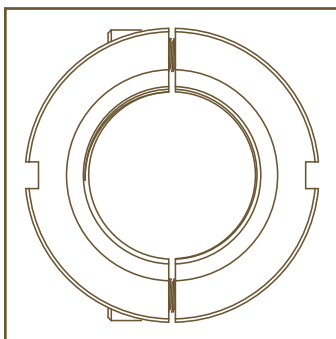
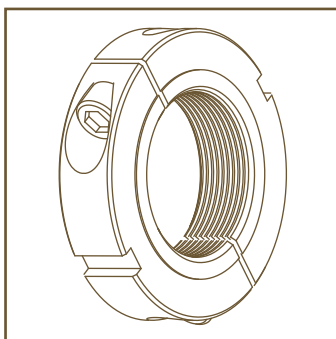
Applications:

- Corrosive environments
- Lower-speed, non-balanced assemblies
- Linear ball screws and linear actuators
- Off-road equipment and machinery
- Pump, paper and steel mill rolls

Max Operating Temperature: 300 Deg F

Materials:

Base Threaded Nut - Stainless Steel
Fastener - Stainless Steel



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (Inch-Lbs)
SNC2-32S	8-32	0.625	0.406	0.281	1050	4-40	14
SNC3-24S	10-24	0.625	0.406	0.281	1150	4-40	14
SNC4-20S	0.250-20	0.625	0.406	0.281	1450	4-40	14
SNC5-18S	0.3125-18	0.688	0.469	0.281	1650	4-40	14
SNC6-16S	0.375-16	0.875	0.594	0.344	2600	6-32	25
SNC7-14S	0.4375-14	0.938	0.656	0.344	2800	6-32	25
SNC8-13S	0.500-13	1.125	0.781	0.437	3900	10-32	60
SNC10-11S	0.625-11	1.313	0.922	0.437	4800	10-32	60
SNC12-10S	0.750-10	1.500	1.063	0.500	6900	1/4-28	150
SNC14-9S	0.875-9	1.625	1.188	0.500	7600	1/4-28	150
SNC16-8S	1.000-8	1.750	1.313	0.500	8200	1/4-28	150
SNC18-7S	1.125-7	1.875	1.438	0.500	8900	1/4-28	150
SNC20-7S	1.250-7	2.063	1.625	0.500	9700	1/4-28	150
SNC22-6S	1.375-6	2.250	1.719	0.563	11900	1/4-28	150
SNC24-6S	1.500-6	2.375	1.844	0.563	12400	1/4-28	150

Thread to Face Runout Specifications Available on Page X16

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A19

Engineering & Sales Support: (401) 728-0700



TWO-PIECE SPLITNUT SNF SERIES - FINE

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Assembles onto shaft without removing other existing power transmission components
- Greater axial strength than SNC series with coarse thread
- Finer assembly adjustment than SNC series with coarse threads
- Infinite adjustment and preloading capacity
- Splitnut design provides increased assembly holding power
- Tangential (X-Axis) access to locking and adjusting of assembly
- Easier and faster to install than traditional locknut and lockwasher
- Eliminates the need for cutting or repairing shaft keyway
- Does not damage shaft threads when secured
- Black oxide coating with wax finish to prevent corrosion
- Manufactured in USA and RoHS Compliant

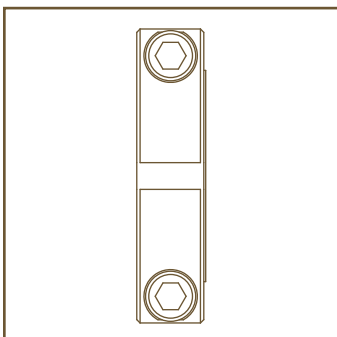
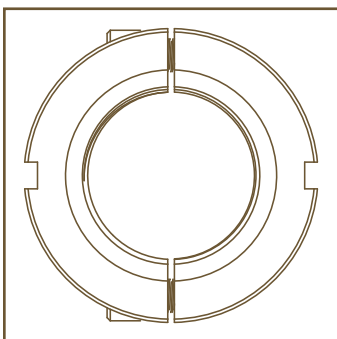
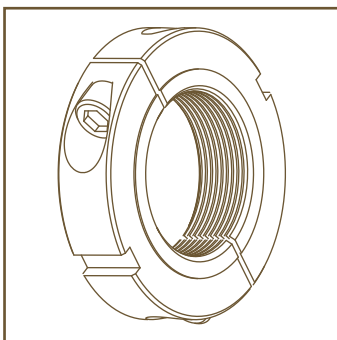
Applications:

- Lower-speed, non-balanced assemblies
- Linear ball screws and linear actuators
- Off-road equipment and machinery
- Mining and mineral extraction equipment
- Pump, paper and steel mill rolls

Max Operating Temperature: 300 Deg F

Materials:

Base Threaded Nut - Carbon Steel
Fastener - Hardened Alloy



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (Inch-Lbs)
SNF3-32	10-32	0.625	0.406	0.281	1650	4-40	14
SNF4-28	0.250-28	0.625	0.406	0.281	1950	4-40	14
SNF5-24	0.312-24	0.688	0.469	0.281	2400	4-40	14
SNF6-24	0.375-24	0.875	0.594	0.344	3600	6-32	25
SNF7-20	0.437-20	0.938	0.656	0.344	4000	6-32	25
SNF8-20	0.500-20	1.125	0.781	0.437	5600	10-32	60
SNF10-18	0.625-18	1.313	0.922	0.437	6800	10-32	60
SNF12-16	0.750-16	1.500	1.063	0.500	9800	1/4-28	150
SNF14-14	0.875-14	1.625	1.188	0.500	10900	1/4-28	150
SNF16-12	1.000-12	1.750	1.313	0.500	11700	1/4-28	150
SNF16-14	1.000-14	1.750	1.313	0.500	12000	1/4-28	150
SNF18-12	1.125-12	1.875	1.438	0.500	12600	1/4-28	150
SNF20-12	1.250-12	2.063	1.625	0.500	13800	1/4-28	150
SNF22-12	1.375-12	2.250	1.719	0.563	17000	1/4-28	150
SNF24-12	1.500-12	2.375	1.844	0.563	17700	1/4-28	150
SNF32-12	2.000-12	3.000	2.469	0.625	24300	5/16-24	260

Thread to Face Runout Specifications Available on Page X16

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A20

Engineering & Sales Support: (401) 728-0700

TWO-PIECE SPLITNUT SNF SERIES - STAINLESS

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Corrosion resistant stainless steel
- Assembles onto shaft without removing other existing power transmission components
- Greater axial strength than SNC series with coarse thread
- Finer assembly adjustment than SNC series with coarse threads
- Infinite adjustment and preloading capacity
- Splitnut design provides increased assembly holding power
- Tangential (X-Axis) access to locking and adjusting of assembly
- Easier and faster to install than traditional locknut and lockwasher
- Eliminates the need for cutting or repairing shaft keyway
- Does not damage shaft threads when secured
- Manufactured in USA and RoHS Compliant

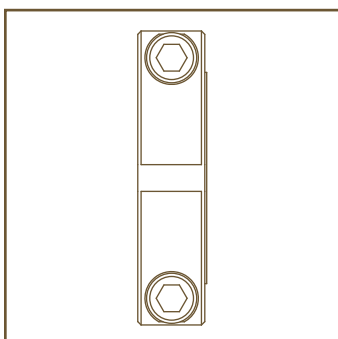
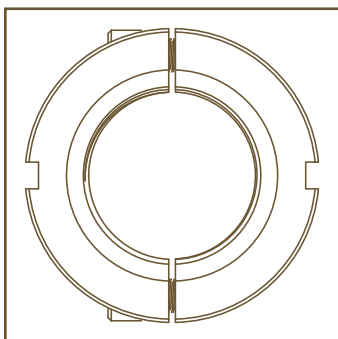
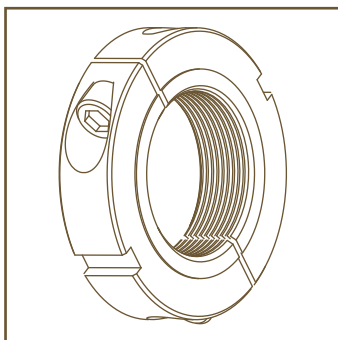
Applications:

- Corrosive environments
- Lower-speed, non-balanced assemblies
- Linear ball screws and linear actuators
- Off-road equipment and machinery
- Pump, paper and steel mill rolls

Max Operating Temperature: 300 Deg F

Materials:

Base Threaded Nut - Stainless Steel
Fastener - Stainless Steel



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (Inch-Lbs)
SNF3-32S	10-32	0.625	0.406	0.281	1250	4-40	14
SNF4-28S	0.250-28	0.625	0.406	0.281	1550	4-40	14
SNF5-24S	0.312-24	0.688	0.469	0.281	1850	4-40	14
SNF6-24S	0.375-24	0.875	0.594	0.344	2900	6-32	25
SNF7-20S	0.437-20	0.938	0.656	0.344	3200	6-32	25
SNF8-20S	0.500-20	1.125	0.781	0.437	4500	10-32	60
SNF10-18S	0.625-18	1.313	0.922	0.437	5400	10-32	60
SNF12-16S	0.750-16	1.500	1.063	0.500	7800	1/4-28	150
SNF14-14S	0.875-14	1.625	1.188	0.500	8700	1/4-28	150
SNF16-12S	1.000-12	1.750	1.313	0.500	9400	1/4-28	150
SNF16-14S	1.000-14	1.750	1.313	0.500	9600	1/4-28	150
SNF18-12S	1.125-12	1.875	1.438	0.500	10000	1/4-28	150
SNF20-12S	1.250-12	2.063	1.625	0.500	11000	1/4-28	150
SNF22-12S	1.375-12	2.250	1.719	0.563	13500	1/4-28	150
SNF24-12S	1.500-12	2.375	1.844	0.563	14100	1/4-28	150
SNF32-12S	2.000-12	3.000	2.469	0.625	19400	5/16-24	260

Thread to Face Runout Specifications Available on Page X16

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A21

Engineering & Sales Support: (401) 728-0700



**TWO-PIECE SPLITNUT
SNS SERIES - 16 TPI**

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Assembles onto shaft without removing other existing power transmission components
- Provides finer adjustment and preloading in larger diameters
- Finer thread pitch provides greater axial loading capacity
- Splitnut design provides increased assembly holding power
- Tangential (X-Axis) access to locking and adjusting of assembly
- Easier and faster to install than traditional locknut and lockwasher
- Eliminates the need for cutting or repairing shaft keyway
- Does not damage shaft threads when secured
- Black oxide coating with wax finish to prevent corrosion
- Manufactured in USA and RoHS Compliant

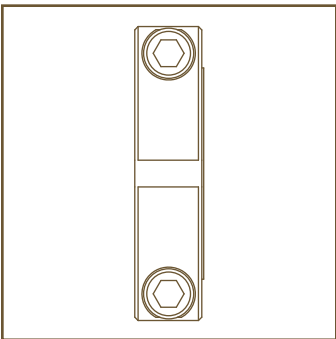
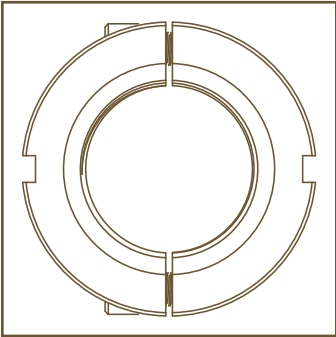
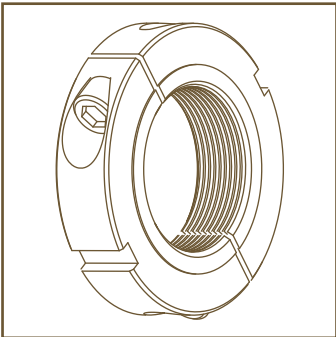
Applications:

- Lower-speed, non-balanced assemblies
- Linear ball screws and linear actuators
- Off-road equipment and machinery
- Mining and mineral extraction equipment
- Pump, paper and steel mill rolls

Max Operating Temperature: 300 Deg F

Materials:

Base Threaded Nut - Carbon Steel
Fastener - Hardened Alloy



Part Number	Thread	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)	Socket Head Cap Screw	Suggested Torque (N-m)
SNS14-16	0.875-16	1.625	1.188	0.500	11300	1/4-28	150
SNS16-16	1.000-16	1.750	1.313	0.500	12200	1/4-28	150
SNS18-16	1.125-16	1.875	1.438	0.500	13100	1/4-28	150
SNS20-16	1.250-16	2.063	1.625	0.500	14300	1/4-28	150
SNS22-16	1.375-16	2.250	1.719	0.563	17600	1/4-28	150
SNS24-16	1.500-16	2.375	1.844	0.563	18400	1/4-28	150
SNS26-16	1.625-16	2.750	1.969	0.625	22500	5/16-24	260
SNS28-16	1.750-16	2.750	2.219	0.625	23700	5/16-24	260
SNS30-16	1.875-16	2.875	2.344	0.625	24500	5/16-24	260
SNS32-16	2.000-16	3.000	2.469	0.625	25300	5/16-24	260
SNS36-16	2.250-16	3.250	2.719	0.625	26700	5/16-24	260
SNS40-16	2.500-16	3.500	2.969	0.625	27900	5/16-24	260
SNS44-16	2.750-16	3.750	3.219	0.625	28900	5/16-24	260
SNS48-16	3.000-16	4.000	3.469	0.625	29900	5/16-24	260

Thread to Face Runout Specifications Available on Page X16

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

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TWO-PIECE SPLITNUT SNS SERIES - STAINLESS

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Corrosion resistant stainless steel
- Assembles onto shaft without removing other existing power transmission components
- Provides finer adjustment and preloading in larger diameters
- Finer thread pitch provides greater axial loading capacity
- Splitnut design provides increased assembly holding power
- Tangential (X-Axis) access to locking and adjusting of assembly
- Easier and faster to install than traditional locknut and lockwasher
- Eliminates the need for cutting or repairing shaft keyway
- Does not damage shaft threads when secured
- Manufactured in USA and RoHS Compliant

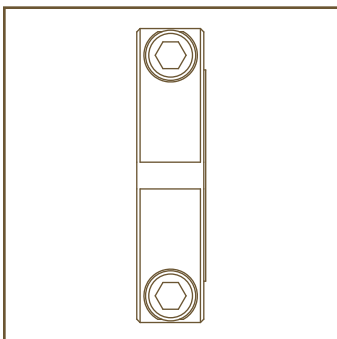
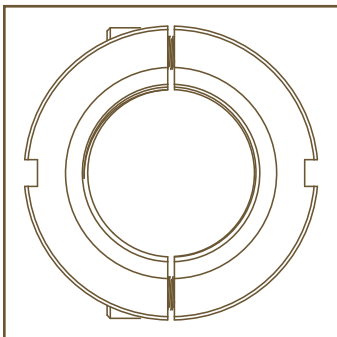
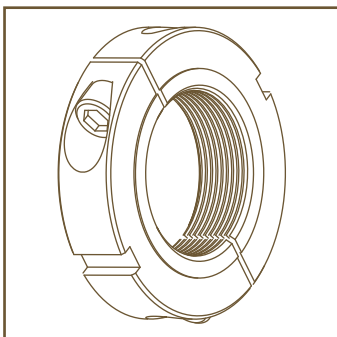
Applications:

- Corrosive environments
- Lower-speed, non-balanced assemblies
- Linear ball screws and linear actuators
- Off-road equipment and machinery
- Pump, paper and steel mill rolls

Max Operating Temperature: 300 Deg F

Materials:

Base Threaded Nut - Stainless Steel
Fastener - Stainless Steel



Part Number	Thread	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)	Socket Head Cap Screw	Suggested Torque (N-m)
SNS14-16S	0.875-16	1.625	1.188	0.500	9000	1/4-28	150
SNS16-16S	1.000-16	1.750	1.313	0.500	9700	1/4-28	150
SNS18-16S	1.125-16	1.875	1.438	0.500	10500	1/4-28	150
SNS20-16S	1.250-16	2.063	1.625	0.500	11400	1/4-28	150
SNS22-16S	1.375-16	2.250	1.719	0.563	14000	1/4-28	150
SNS24-16S	1.500-16	2.375	1.844	0.563	14700	1/4-28	150
SNS26-16S	1.625-16	2.750	1.969	0.625	18000	5/16-24	260
SNS28-16S	1.750-16	2.750	2.219	0.625	18900	5/16-24	260
SNS30-16S	1.875-16	2.875	2.344	0.625	19600	5/16-24	260
SNS32-16S	2.000-16	3.000	2.469	0.625	20100	5/16-24	260
SNS36-16S	2.250-16	3.250	2.719	0.625	21400	5/16-24	260
SNS40-16S	2.500-16	3.500	2.969	0.625	22200	5/16-24	260
SNS44-16S	2.750-16	3.750	3.219	0.625	23100	5/16-24	260
SNS48-16S	3.000-16	4.000	3.469	0.625	23900	5/16-24	260

Thread to Face Runout Specifications Available on Page X16

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A23

Engineering & Sales Support: (401) 728-0700

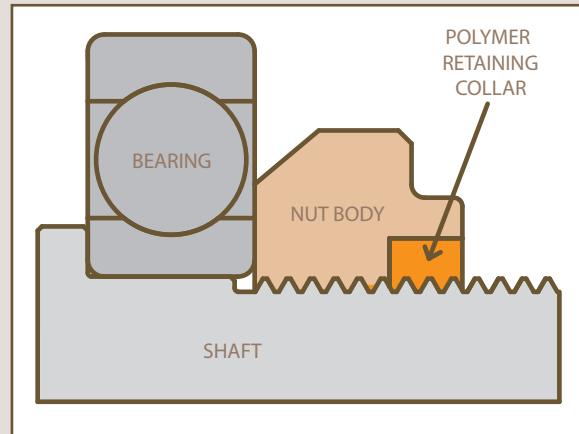
Introduction to Prevailing Torque Style Products

The origin of prevailing torque style retainers can be traced back to 1927, when a young man, Carl Swanstrom, emigrated from Sweden to the United States with his idea for a unique product that used frictional forces to retain assemblies.

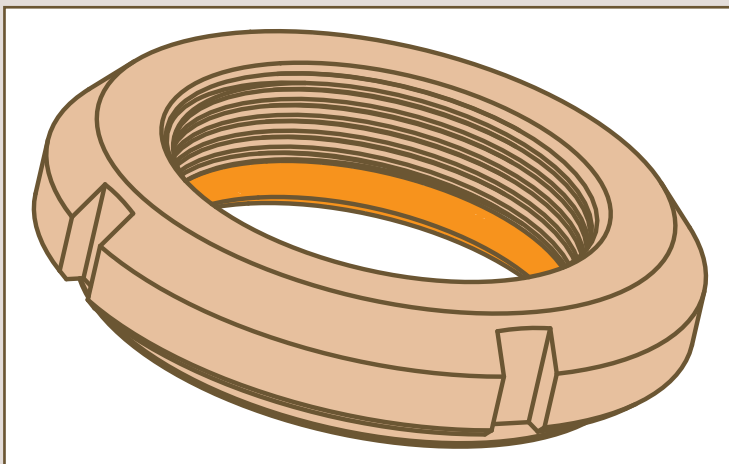
The original version of Mr. Swanstrom's prevailing torque retainer was a threaded locknut with a collar swedged into the rear side. The original torque collar was manufactured from vulcanized fibre and bored out to a specific functional tolerance. During his testing, Mr. Stanstrom was able to prove his retainer could resist vibrational forces, had greater holding strength than a traditional locknut and tabbed lockwasher, prevented premature equipment failures, and could be installed in a fraction of the time that other retainers could be. Furthermore, the design of the prevailing torque retainer eliminated the need for cutting or repair of the shaft keyway and provided an unlimited 360 degrees of locking positions for exact bearing preload and adjustment.

In the 1940's, the United States Air Force was the first entity to approve and adopt the use of the prevailing torque retainer for all aeronautical applications, which included military aircraft engines. Since then, the prevailing torque style retainer has been adopted by farming, automotive, mining, aerospace and marine industries as the standard for assembly retention.

Whittet-Higgins' modern super-precision prevailing torque retaining nut, Bearhug branded, functions by the incorporation of a pre-threaded, inter-molded, heat stabilized polymer collar or spring steel insert that is manufactured with a precision turned smaller thread pitch that the mating shaft or spindle thread on which it is being assembled. Assembling the Bearhug to the shaft thread exerts a torque force on the polymer or spring steel collar, causing them to deform and compress to create increased frictional force, which further limits the retaining nut from loosening, and in turn prevents the whole assembly from loosening during operation.



Whittet-Higgins' Bearhug provides superior precision adjustment and loading of bearings and other power transmission components than traditional shaft locknuts and lockwashers. The Bearhug provides superior ease in removing and repositioning components on shafts and spindles than a traditional shaft locknut and lockwasher combination, and is effective on both soft and hardened shafts



Today, Whittet-Higgins offers the largest selection of general use and application specific prevailing torque retainers for inch, metric, corrosion resistance, high heat, and high strength applications. Since 1968??, Whittet-Higgins Company has been the leader in the manufacture of high precision prevailing torque style bearing and power transmission retainers for the farming, mining, aerospace, marine, medical and industrial markets.



BEARHUG - BH SERIES - INCH

Prevailing Torque Self-Locking

Benefits & Characteristics:

- Self-locking
- Easier and faster to install than traditional locknut and lockwasher
- Prevents assembly from loosening due to vibration, shock and torque
- Balanced for higher speed applications
- Eliminates the need for cutting or repairing shaft keyway
- Infinite adjustment and preloading capability
- Does not damage shaft threads when secured
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

Applications:

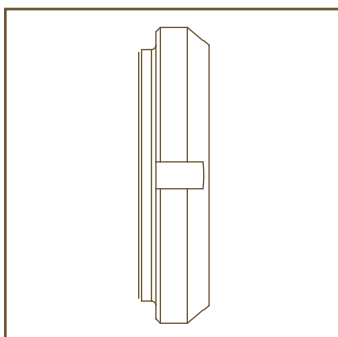
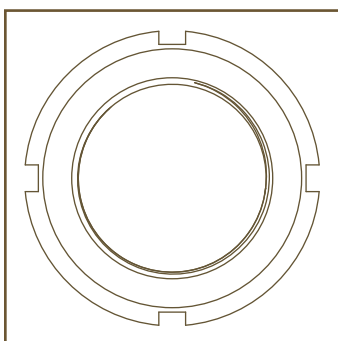
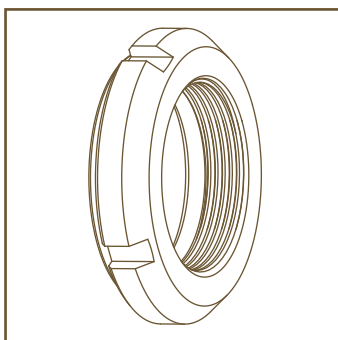
- High precision applications
- Balanced assembly applications
- Compressors
- Gear box assemblies
- Packaging equipment
- Pumps

Max Operating Temperature: 160 Deg F

Materials:

Locknut - Carbon Steel

Locking Ring - Heat Stabilized Polymer



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)
BH-00	0.391-32	0.750	0.625	0.281	3100
BH-01	0.469-32	0.875	0.719	0.375	5700
BH-02	0.586-32	1.000	0.813	0.375	6500
BH-03	0.664-32	1.125	0.938	0.406	8200
BH-04	0.781-32	1.375	1.125	0.406	9900
BH-05	0.969-32	1.563	1.281	0.469	12600
BH-06	1.173-18	1.750	1.500	0.469	13500
BH-065	1.312-18	2.063	1.813	0.500	15600
BH-07	1.376-18	2.063	1.813	0.500	16100
BH-08	1.563-18	2.250	2.000	0.500	17800
BH-09	1.767-18	2.531	2.281	0.500	19900
BH-10	1.967-18	2.688	2.438	0.563	24100
BH-11	2.157-18	2.969	2.656	0.563	26700
BH-12	2.360-18	3.156	2.844	0.594	28800
BH-13	2.548-18	3.375	3.063	0.625	33300
BH-14	2.751-18	3.625	3.313	0.625	34900
BH-15	2.933-12	3.875	3.563	0.656	35400
BH-16	3.137-12	4.156	3.844	0.656	38200
BH-17	3.340-12	4.406	4.031	0.719	43800
BH-18	3.527-12	4.656	4.281	0.781	53600
BH-19	3.730-12	4.938	4.563	0.813	60400
BH-20	3.918-12	5.188	4.813	0.844	67100
BH-21	4.122-12	5.438	5.000	0.875	69900
BH-22	4.325-12	5.719	5.281	0.938	83300
BH-24	4.716-12	6.125	5.688	0.938	88500
BH-26	5.106-12	6.750	6.188	1.000	109700
BH-28	5.497-12	7.094	6.531	1.063	119600
BH-30	5.888-12	7.688	7.063	1.125	142700
BH-32	6.284-8	8.063	7.438	1.188	146300
BH-34	6.659-8	8.656	8.031	1.219	166300
BH-36	7.066-8	9.063	8.375	1.250	175400
BH-38	7.472-8	9.469	8.781	1.281	184500
BH-40	7.847-8	9.844	9.156	1.313	197000

Thread to Face Runout Specifications Available on Page X16

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B1

Engineering & Sales Support: (401) 728-0700



Benefits & Characteristics:

- Self-locking
- Sixteen threads per inch for finer assembly adjustment
- Easier and faster to install than traditional locknut and lockwasher
- Prevents assembly from loosening due to vibration, shock and torque
- Balanced for higher speed applications
- Eliminates the need for cutting or repairing shaft keyway
- Infinite adjustment and preloading capability
- Does not damage shaft threads when secured
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

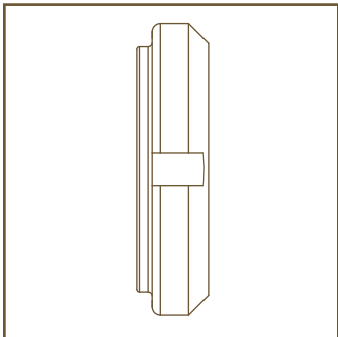
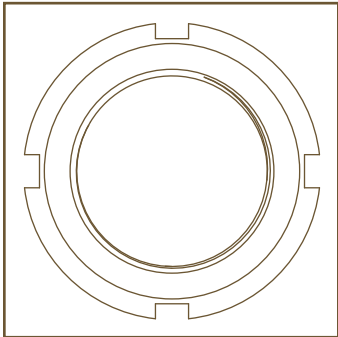
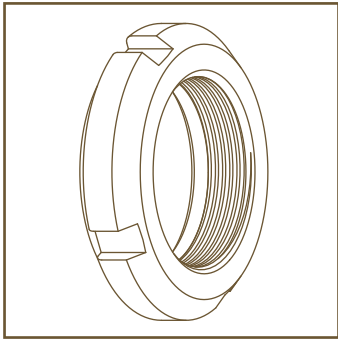
Applications:

- Fine adjustment applications
- High precision applications
- Balanced assembly applications
- Compressors
- Gear box assemblies
- Pumps

Max Operating Temperature: 160 Deg F

Materials:

Locknut - Carbon Steel
Locking Ring - Heat Stabilized Polymer



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)
BHI-01	0.750-16	1.500	1.188	0.438	9500
BHI-02	0.875-16	1.625	1.313	0.438	10400
BHI-03	1.000-16	1.750	1.438	0.438	11300
BHI-04	1.125-16	1.875	1.563	0.438	12100
BHI-05	1.250-16	2.000	1.688	0.563	19200
BHI-06	1.375-16	2.250	1.938	0.563	20700
BHI-07	1.500-16	2.250	1.938	0.563	21000
BHI-08	1.625-16	2.500	2.188	0.563	24600
BHI-09	1.750-16	2.625	2.313	0.563	25500
BHI-10	1.875-16	2.750	2.438	0.563	26300
BHI-11	2.000-16	3.000	2.688	0.563	29200
BHI-12	2.250-16	3.250	2.875	0.688	40500
BHI-13	2.500-16	3.500	3.125	0.688	42300
BHI-14	2.750-16	3.750	3.375	0.688	43900
BHI-15	3.000-16	4.000	3.625	0.688	45400
BHI-16	3.250-16	4.500	4.000	0.813	66800
BHI-17	3.500-16	4.750	4.250	0.813	68700
BHI-18	3.750-16	5.250	4.750	0.813	78900

Thread to Face Runout Specifications Available on Page X16



BEARHUG - BHL SERIES - LEFT-HANDED

Prevailing Torque Self-Locking

Benefits & Characteristics:

- Self-locking
- Left hand thread prevents clockwise rotating assemblies from loosening
- Easier and faster to install than traditional locknut and lockwasher
- Prevents assembly from loosening due to vibration, shock and torque
- Balanced for higher speed applications
- Eliminates the need for cutting or repairing shaft keyway
- Infinite adjustment and preloading capability
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

Applications:

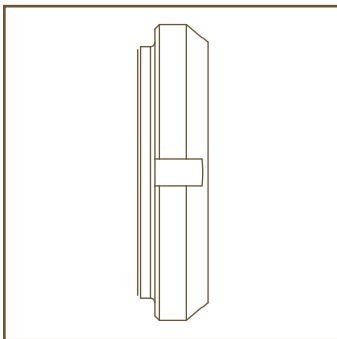
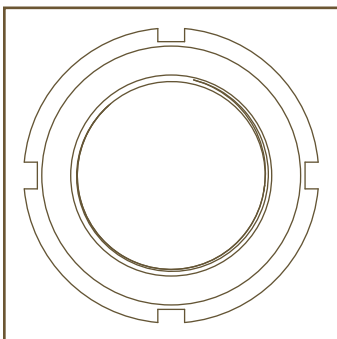
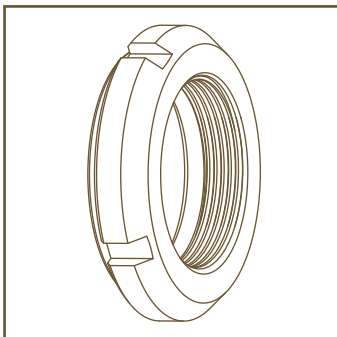
- Clockwise rotating applications
- High precision applications
- Balanced assembly applications
- Compressors
- Gear box assemblies
- Pumps

Max Operating Temperature: 160 Deg F

Materials:

Locknut - Carbon Steel

Locking Ring - Heat Stabilized Polymer



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)
BHL-00	0.391-32	0.750	0.625	0.281	3100
BHL-01	0.469-32	0.875	0.719	0.375	5700
BHL-02	0.586-32	1.000	0.813	0.375	6500
BHL-03	0.664-32	1.125	0.938	0.406	8200
BHL-04	0.781-32	1.375	1.125	0.406	9900
BHL-05	0.969-32	1.563	1.281	0.469	12600
BHL-06	1.173-18	1.750	1.500	0.469	13500
BHL-07	1.376-18	2.063	1.813	0.500	16100
BHL-08	1.563-18	2.250	2.000	0.500	17800
BHL-09	1.767-18	2.531	2.281	0.500	19900
BHL-10	1.967-18	2.688	2.438	0.563	24100
BHL-11	2.157-18	2.969	2.656	0.563	26700
BHL-12	2.360-18	3.156	2.844	0.594	28800
BHL-13	2.548-18	3.375	3.063	0.625	33300
BHL-14	2.751-18	3.625	3.313	0.625	34900
BHL-15	2.933-12	3.875	3.563	0.656	35400
BHL-16	3.137-12	4.156	3.844	0.656	38200
BHL-17	3.340-12	4.406	4.031	0.719	43800
BHL-18	3.527-12	4.656	4.281	0.781	53600
BHL-19	3.730-12	4.938	4.563	0.813	60400
BHL-20	3.918-12	5.188	4.813	0.844	67100
BHL-21	4.122-12	5.438	5.000	0.875	69900
BHL-22	4.325-12	5.719	5.281	0.938	83300
BHL-24	4.716-12	6.125	5.688	0.938	88500
BHL-26	5.106-12	6.750	6.188	1.000	109700
BHL-28	5.497-12	7.094	6.531	1.063	119600
BHL-30	5.888-12	7.688	7.063	1.125	142700
BHL-32	6.284-8	8.063	7.438	1.188	146300
BHL-34	6.659-8	8.656	8.031	1.219	166300
BHL-36	7.066-8	9.063	8.375	1.250	175400
BHL-38	7.472-8	9.469	8.781	1.281	184500
BHL-40	7.847-8	9.844	9.156	1.313	197000

Thread to Face Runout Specifications Available on Page X16

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BEARHUG - BHM SERIES HIGH STRENGTH

Prevailing Torque Self-Locking

Benefits & Characteristics:

- Self-locking
- Hardened alloy for high axial loading capacity
- Easier and faster to install than traditional locknut and lockwasher
- Prevents assembly from loosening due to vibration, shock and torque
- Balanced for higher speed applications
- Eliminates the need for cutting or repairing shaft keyway
- Infinite adjustment and preloading capability
- Does not damage shaft threads when secured
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

Applications:

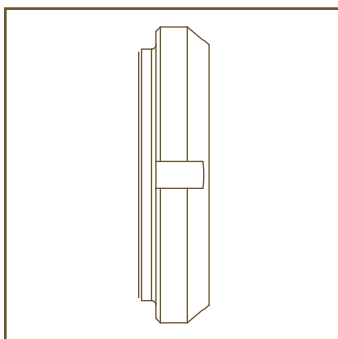
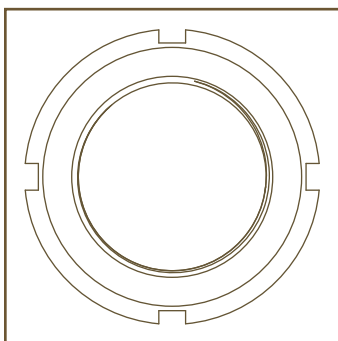
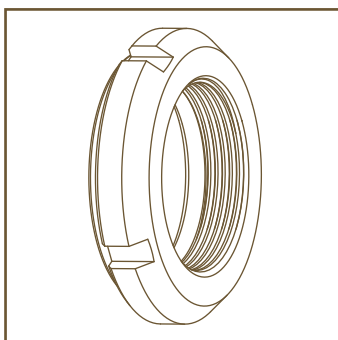
- High axial load applications
- High precision applications
- Balanced assembly applications
- Compressors
- Gear box assemblies
- Pumps

Max Operating Temperature: 160 Deg F

Materials:

Locknut - Hardened Alloy

Locking Ring - Heat Stabilized Polymer



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)
BHM-00	0.391-32	0.750	0.625	0.281	4700
BHM-01	0.469-32	0.875	0.719	0.375	8600
BHM-02	0.586-32	1.000	0.813	0.375	9700
BHM-03	0.664-32	1.125	0.938	0.406	12300
BHM-04	0.781-32	1.375	1.125	0.406	15100
BHM-05	0.969-32	1.563	1.281	0.469	18800
BHM-06	1.173-18	1.750	1.500	0.469	19300
BHM-07	1.376-18	2.063	1.813	0.500	24100
BHM-08	1.563-18	2.250	2.000	0.500	26800
BHM-09	1.767-18	2.531	2.281	0.500	30100
BHM-10	1.967-18	2.688	2.438	0.563	36000
BHM-11	2.157-18	2.969	2.656	0.563	40100
BHM-12	2.360-18	3.156	2.844	0.594	43200
BHM-13	2.548-18	3.375	3.063	0.625	50000
BHM-14	2.751-18	3.625	3.313	0.625	52900
BHM-15	2.933-12	3.875	3.563	0.656	53200
BHM-16	3.137-12	4.156	3.844	0.656	57200
BHM-17	3.340-12	4.406	4.031	0.719	65700
BHM-18	3.527-12	4.656	4.281	0.781	80400
BHM-19	3.730-12	4.938	4.563	0.813	90600
BHM-20	3.918-12	5.188	4.813	0.844	100600
BHM-21	4.122-12	5.438	5.000	0.875	104800
BHM-22	4.325-12	5.719	5.281	0.938	125000
BHM-24	4.716-12	6.125	5.688	0.938	132800
BHM-26	5.106-12	6.750	6.188	1.000	164600
BHM-28	5.497-12	7.094	6.531	1.063	175600
BHM-30	5.888-12	7.688	7.063	1.125	209200

Thread to Face Runout Specifications Available on Page X16

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

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B4

Engineering & Sales Support: (401) 728-0700



BEARHUG - BHS SERIES - STAINLESS

Prevailing Torque Self-Locking

Benefits & Characteristics:

- Self-locking
- Corrosion resistant stainless steel
- Easier and faster to install than traditional locknut and lockwasher
- Prevents assembly from loosening due to vibration, shock and torque
- Balanced for higher speed applications
- Eliminates the need for cutting or repairing shaft keyway
- Infinite adjustment and preloading capability
- Does not damage shaft threads when secured
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

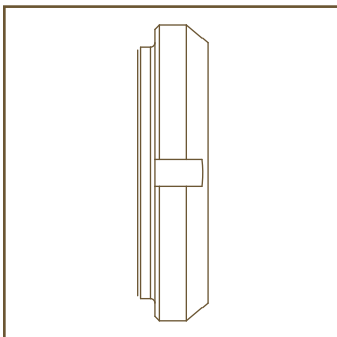
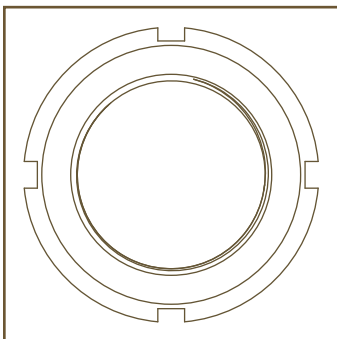
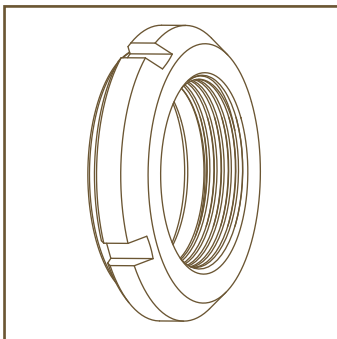
Applications:

- Corrosive environments
- High precision applications
- Balanced assembly applications
- Compressors
- Gear box assemblies
- Pumps

Max Operating Temperature: 160 Deg F

Materials:

Locknut - Stainless Steel
Locking Ring - Heat Stabilized Polymer



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)
BHS-00	0.391-32	0.750	0.625	0.281	2100
BHS-01	0.469-32	0.875	0.719	0.375	3800
BHS-02	0.586-32	1.000	0.813	0.375	4300
BHS-03	0.664-32	1.125	0.938	0.406	5400
BHS-04	0.781-32	1.375	1.125	0.406	6700
BHS-05	0.969-32	1.563	1.281	0.469	8400
BHS-06	1.173-18	1.750	1.500	0.469	8600
BHS-07	1.376-18	2.063	1.813	0.500	10700
BHS-08	1.563-18	2.250	2.000	0.500	11900
BHS-09	1.767-18	2.531	2.281	0.500	13400
BHS-10	1.967-18	2.688	2.438	0.563	16000
BHS-11	2.157-18	2.969	2.656	0.563	17800
BHS-12	2.360-18	3.156	2.844	0.594	19200
BHS-13	2.548-18	3.375	3.063	0.625	22200
BHS-14	2.751-18	3.625	3.313	0.625	23300
BHS-15	2.933-12	3.875	3.563	0.656	23600
BHS-16	3.137-12	4.156	3.844	0.656	25400
BHS-17	3.340-12	4.406	4.031	0.719	29200
BHS-18	3.527-12	4.656	4.281	0.781	35700
BHS-19	3.730-12	4.938	4.563	0.813	40300
BHS-20	3.918-12	5.188	4.813	0.844	44700
BHS-21	4.122-12	5.438	5.000	0.875	46600
BHS-22	4.325-12	5.719	5.281	0.938	55600
BHS-24	4.716-12	6.125	5.688	0.938	59000

Thread to Face Runout Specifications Available on Page X16

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B5

Engineering & Sales Support: (401) 728-0700



Benefits & Characteristics:

- Self-locking
- All metal design for high temperature resistance
- Hardened alloy for high axial loading capacity
- Easier and faster to install than traditional locknut and lockwasher
- Prevents assembly from loosening due to vibration, shock and torque
- Eliminates the need for cutting or repairing shaft keyway
- Infinite adjustment and preloading capability
- Does not damage shaft threads when secured
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

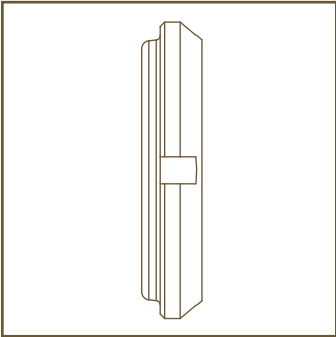
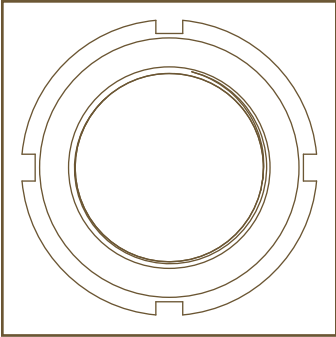
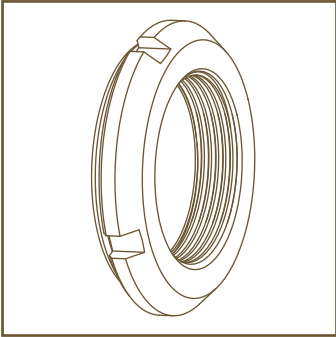
Applications:

- High temperature environments
- High precision applications
- Balanced assembly applications
- Compressors
- Gear box assemblies
- Pumps

Max Operating Temperature: 300 Deg F

Materials:

Locknut - Hardened Alloy
Locking Ring - Spring Steel



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)
BHT-02	0.586-32	1.000	0.813	0.327	9100
BHT-03	0.664-32	1.125	0.938	0.327	10200
BHT-04	0.781-32	1.375	1.125	0.378	14600
BHT-05	0.969-32	1.562	1.281	0.378	16400
BHT-06	1.173-18	1.750	1.500	0.390	17800
BHT-07	1.376-18	2.063	1.813	0.433	24100
BHT-08	1.563-18	2.250	2.000	0.472	28700
BHT-09	1.767-18	2.531	2.281	0.532	35700
BHT-10	1.967-18	2.688	2.438	0.571	39600
BHT-11	2.157-18	2.969	2.656	0.571	44100
BHT-12	2.360-18	3.156	2.844	0.571	45100
BHT-13	2.548-18	3.375	3.063	0.650	51800
BHT-14	2.751-18	3.625	3.313	0.650	55200

Thread to Face Runout Specifications Available on Page X16

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BEARHUG - BM SERIES - METRIC

Prevailing Torque Self-Locking

Benefits & Characteristics:

- Self-locking
- Easier and faster to install than traditional locknut and lockwasher
- Prevents assembly from loosening due to vibration, shock and torque
- Balanced for higher speed applications
- Eliminates the need for cutting or repairing shaft keyway
- Infinite adjustment and preloading capability
- Does not damage shaft threads when secured
- Meets and exceeds specifications of ISO 2982-2:2013(E)
- Manufactured in USA and RoHS compliant

Applications:

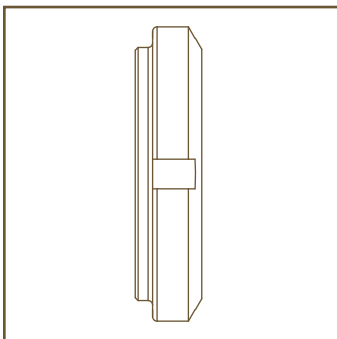
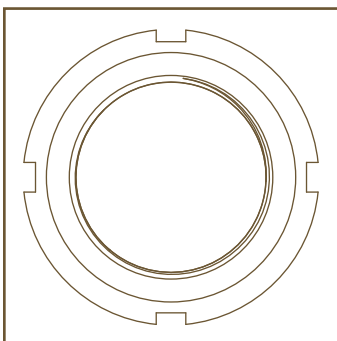
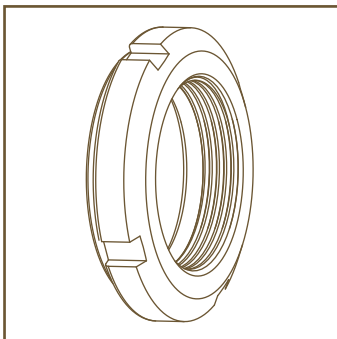
- High precision applications
- Balanced assembly applications
- Compressors
- Gear box assemblies
- Packaging equipment
- Pumps

Max Operating Temperature: 160 Deg F

Materials:

Locknut - Carbon Steel

Locking Ring - Heat Stabilized Polymer



Part Number	Thread	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)
BM-00	M10 X 0.75	18.0	13.5	7.0	11
BM-01	M12 X 1.0	22.0	17.0	8.0	17
BM-02	M15 X 1.0	25.0	21.0	8.5	21
BM-03	M17 X 1.0	28.0	24.0	9.0	27
BM-04	M20 X 1.0	32.0	26.0	10.0	36
BM-044	M22 X 1.0	34.0	28.0	10.5	41
BM-05	M25 X 1.5	38.0	32.0	11.0	43
BM-056	M28 X 1.5	42.0	36.0	11.0	47
BM-06	M30 X 1.5	45.0	38.0	11.5	54
BM-064	M32 X 1.5	48.0	40.0	11.5	58
BM-07	M35 X 1.5	52.0	44.0	12.0	67
BM-08	M40 X 1.5	58.0	50.0	12.0	73
BM-09	M45 X 1.5	65.0	56.0	13.0	93
BM-10	M50 X 1.5	70.0	61.0	13.0	97
BM-11	M55 X 2.0	75.0	67.0	15.0	106
BM-12	M60 X 2.0	80.0	73.0	15.0	109
BM-13	M65 X 2.0	85.0	79.0	15.0	113
BM-14	M70 X 2.0	92.0	85.0	17.0	137
BM-15	M75 X 2.0	98.0	90.0	17.0	145
BM-16	M80 X 2.0	105.0	95.0	17.0	172
BM-17	M85 X 2.0	110.0	102.0	18.0	190
BM-18	M90 X 2.0	120.0	108.0	19.0	226
BM-19	M95 X 2.0	125.0	113.0	20.0	229
BM-20	M100 X 2.0	130.0	120.0	21.0	251
BM-21	M105 X 2.0	140.0	126.0	21.0	283
BM-22	M110 X 2.0	145.0	133.0	22.0	310
BM-23	M115 X 2.0	150.0	137.0	22.0	315
BM-24	M120 X 2.0	155.0	138.0	23.0	341
BM-25	M125 X 2.0	160.0	148.0	23.0	346
BM-26	M130 X 2.0	165.0	149.0	24.0	373
BM-27	M135 X 2.0	170.0	160.0	24.0	414
BM-28	M140 X 2.0	180.0	160.0	25.0	444

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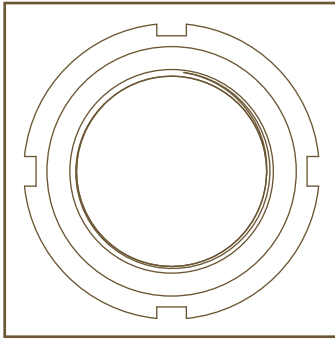
Thread to Face Runout Specifications Available on Page X16

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B7

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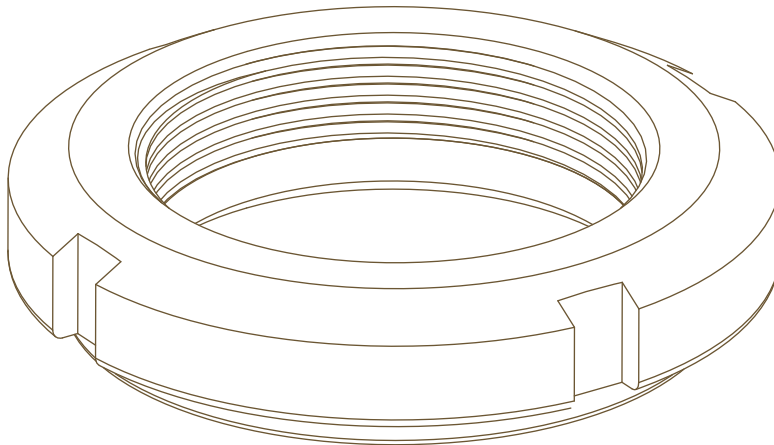
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For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

Part Number	Thread	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)
BM-29	M145 X 2.0	190.0	171.0	25.0	486
BM-30	M150 X 2.0	195.0	171.0	26.0	520
BM-31	M155 X 3.0	200.0	182.0	27.0	554
BM-32	M160 X 3.0	210.0	182.0	28.0	588
BM-33	M165 X 3.0	210.0	193.0	28.0	594
BM-34	M170 X 3.0	220.0	193.0	29.0	676
BM-36	M180 X 3.0	230.0	203.0	30.0	721
BM-38	M190 X 3.0	240.0	214.0	31.0	765
BM-40	M200 X 3.0	250.0	226.0	32.0	811

Thread to Face Runout Specifications Available on Page X16

Whittet-Higgins Bearhugs are manufactured in a multitude of sizes, materials and configurations to address our customers specific applications. If you cannot find the correct product, need further help selecting a product for a new application, or need one of the standard products modified for your specialized application, please contact one of our engineers at (401) 728-0700





Benefits & Characteristics:

- Self-locking
- Left hand thread prevents clockwise rotating assemblies from loosening
- Easier and faster to install than traditional locknut and lockwasher
- Prevents assembly from loosening due to vibration, shock and torque
- Balanced for higher speed applications
- Eliminates the need for cutting or repairing shaft keyway
- Infinite adjustment and preloading capability
- Meets and exceeds specifications of ISO 2982-2:2013(E)
- Manufactured in USA and RoHS compliant

Applications:

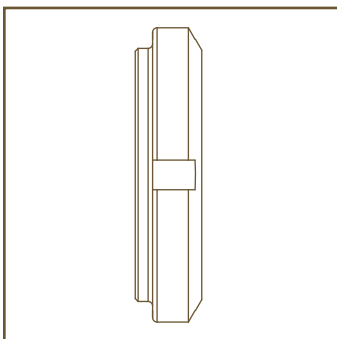
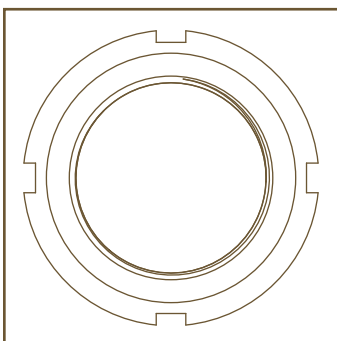
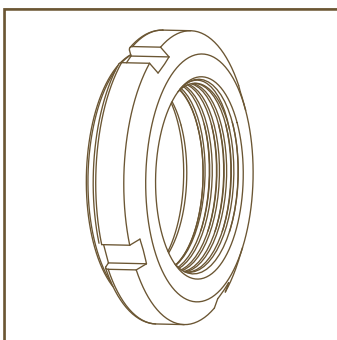
- Clockwise rotating applications
- High precision applications
- Balanced assembly applications
- Compressors
- Gear box assemblies
- Pumps

Max Operating Temperature: 160 Deg F

Materials:

Locknut - Carbon Steel

Locking Ring - Heat Stabilized Polymer



Part Number	Thread	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)
BML-00	M10 X 0.75	18.0	13.5	7.0	11
BML-01	M12 X 1.0	22.0	17.0	8.0	17
BML-02	M15 X 1.0	25.0	21.0	8.5	21
BML-03	M17 X 1.0	28.0	24.0	9.0	27
BML-04	M20 X 1.0	32.0	26.0	10.0	36
BML-044	M22 X 1.0	34.0	28.0	10.5	41
BML-05	M25 X 1.5	38.0	32.0	11.0	43
BML-056	M28 X 1.5	42.0	36.0	11.0	47
BML-06	M30 X 1.5	45.0	38.0	11.5	54
BML-064	M32 X 1.5	48.0	40.0	11.5	58
BML-07	M35 X 1.5	52.0	44.0	12.0	67
BML-08	M40 X 1.5	58.0	50.0	12.0	73
BML-09	M45 X 1.5	65.0	56.0	13.0	93
BML-10	M50 X 1.5	70.0	61.0	13.0	97
BML-11	M55 X 2.0	75.0	67.0	15.0	106
BML-12	M60 X 2.0	80.0	73.0	15.0	109
BML-13	M65 X 2.0	85.0	79.0	15.0	113
BML-14	M70 X 2.0	92.0	85.0	17.0	137
BML-15	M75 X 2.0	98.0	90.0	17.0	145
BML-16	M80 X 2.0	105.0	95.0	17.0	172
BML-17	M85 X 2.0	110.0	102.0	18.0	190
BML-18	M90 X 2.0	120.0	108.0	19.0	226
BML-19	M95 X 2.0	125.0	113.0	20.0	229
BML-20	M100 X 2.0	130.0	120.0	21.0	251
BML-21	M105 X 2.0	140.0	126.0	21.0	283
BML-22	M110 X 2.0	150.0	137.0	22.0	310
BML-24	M120 X 2.0	155.0	138.0	23.0	341

Thread to Face Runout Specifications Available on Page X16



BEARHUG - BMM SERIES HIGH STRENGTH

Prevailing Torque Self-Locking

Benefits & Characteristics:

- Self-locking
- Hardened alloy for high axial loading capacity
- Easier and faster to install than traditional locknut and lockwasher
- Prevents assembly from loosening due to vibration, shock and torque
- Balanced for higher speed applications
- Eliminates the need for cutting or repairing shaft keyway
- Infinite adjustment and preloading capability
- Does not damage shaft threads when secured
- Meets and exceeds specifications of ISO 2982-2:2013(E)
- Manufactured in USA and RoHS compliant

Applications:

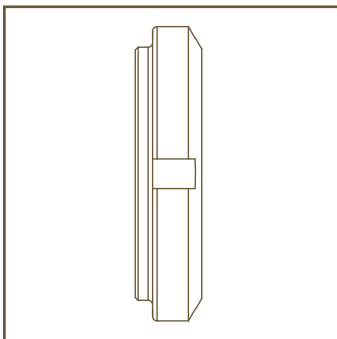
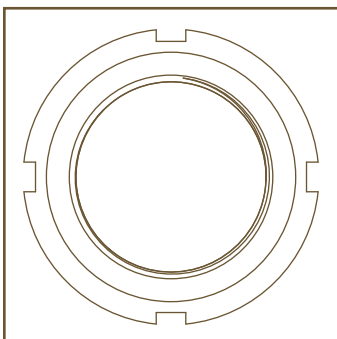
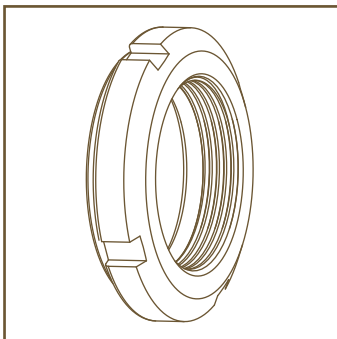
- High axial load applications
- High precision applications
- Balanced assembly applications
- Compressors
- Gear box assemblies
- Pumps

Max Operating Temperature: 160 Deg F

Materials:

Locknut - Hardened Alloy

Locking Ring - Heat Stabilized Polymer



Part Number	Thread	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)
BMM-00	M10 X 0.75	18.0	13.5	7.0	16
BMM-01	M12 X 1.0	22.0	17.0	8.0	26
BMM-02	M15 X 1.0	25.0	21.0	8.5	33
BMM-03	M17 X 1.0	28.0	24.0	9.0	40
BMM-04	M20 X 1.0	32.0	26.0	10.0	54
BMM-044	M22 X 1.0	34.0	28.0	10.5	61
BMM-05	M25 X 1.5	38.0	30.0	11.0	64
BMM-056	M28 X 1.5	42.0	32.0	11.0	71
BMM-06	M30 X 1.5	45.0	36.0	11.5	81
BMM-064	M32 X 1.5	48.0	38.0	11.5	87
BMM-07	M35 X 1.5	52.0	40.0	12.0	100
BMM-08	M40 X 1.5	58.0	44.0	12.0	110
BMM-09	M45 X 1.5	65.0	50.0	13.0	139
BMM-10	M50 X 1.5	70.0	56.0	13.0	145
BMM-11	M55 X 2.0	75.0	61.0	15.0	160
BMM-12	M60 X 2.0	80.0	67.0	15.0	165
BMM-13	M65 X 2.0	85.0	73.0	15.0	169
BMM-14	M70 X 2.0	90.0	79.0	17.0	206
BMM-15	M75 X 2.0	92.0	85.0	17.0	217
BMM-16	M80 X 2.0	98.0	90.0	17.0	258
BMM-17	M85 X 2.0	105.0	95.0	18.0	286
BMM-18	M90 X 2.0	110.0	102.0	19.0	339
BMM-19	M95 x 2.0	120.0	108.0	20.0	344
BMM-20	M100 X 2.0	125.0	113.0	21.0	378
BMM-21	M105 X 2.0	130.0	120.0	21.0	425
BMM-22	M110 X 2.0	140.0	126.0	22.0	465
BMM-23	M115 X 2.0	145.0	133.0	22.0	472
BMM-24	M120 X 2.0	150.0	137.0	23.0	512
BMM-26	M130 X 2.0	160.0	148.0	24.0	602
BMM-28	M140 X 2.0	170.0	160.0	25.0	715
BMM-30	M150 X 2.0	195.0	171.0	26.0	833

Thread to Face Runout Specifications Available on Page X16

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B9

Engineering & Sales Support: (401) 728-0700



Benefits & Characteristics:

- Self-locking
- Corrosion resistant stainless steel
- Easier and faster to install than traditional locknut and lockwasher
- Prevents assembly from loosening due to vibration, shock and torque
- Balanced for higher speed applications
- Eliminates the need for cutting or repairing shaft keyway
- Infinite adjustment and preloading capability
- Does not damage shaft threads when secured
- Meets and exceeds specifications of ISO 2982-2:2013(E)
- Manufactured in USA and RoHS compliant

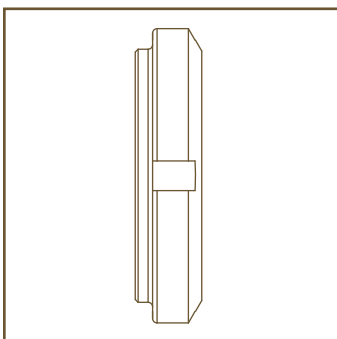
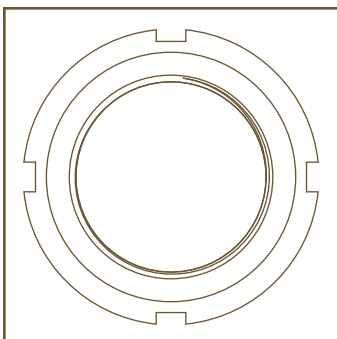
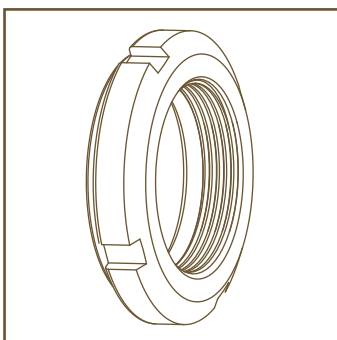
Applications:

- Corrosive environments
- High precision applications
- Balanced assembly applications
- Compressors
- Gear box assemblies
- Pumps

Max Operating Temperature: 160 Deg F

Materials:

Locknut - Stainless Steel
Locking Ring - Heat Stabilized Polymer



Part Number	Thread	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)
BMS-00	M10 X 0.75	18.0	13.5	7.0	7
BMS-01	M12 X 1.0	22.0	17.0	8.0	11
BMS-02	M15 X 1.0	25.0	21.0	8.5	14
BMS-03	M17 X 1.0	28.0	24.0	9.0	17
BMS-04	M20 X 1.0	32.0	26.0	10.0	24
BMS-044	M22 X 1.0	34.0	28.0	10.5	27
BMS-05	M25 X 1.5	38.0	30.0	11.0	28
BMS-056	M28 X 1.5	42.0	32.0	11.0	31
BMS-06	M30 X 1.5	45.0	36.0	11.5	36
BMS-064	M32 X 1.5	48.0	38.0	11.5	38
BMS-07	M35 X 1.5	52.0	40.0	12.0	44
BMS-08	M40 X 1.5	58.0	44.0	12.0	49
BMS-09	M45 X 1.5	65.0	50.0	13.0	61
BMS-10	M50 X 1.5	70.0	56.0	13.0	65
BMS-11	M55 X 2.0	75.0	61.0	15.0	71
BMS-12	M60 X 2.0	80.0	67.0	15.0	73
BMS-13	M65 X 2.0	85.0	73.0	15.0	75
BMS-14	M70 X 2.0	90.0	79.0	17.0	91
BMS-15	M75 X 2.0	92.0	85.0	17.0	96
BMS-16	M80 X 2.0	98.0	90.0	17.0	99
BMS-17	M85 X 2.0	105.0	95.0	18.0	102
BMS-18	M90 X 2.0	110.0	102.0	19.0	113
BMS-19	M95 X 2.0	120.0	108.0	20.0	125
BMS-20	M100 X 2.0	125.0	113.0	21.0	136
BMS-21	M105 X 2.0	130.0	120.0	21.0	141
BMS-22	M110 X 2.0	140.0	126.0	22.0	175
BMM-24	M120 X 2.0	150.0	137.0	23.0	195
BMM-26	M130 X 2.0	160.0	148.0	24.0	211

Thread to Face Runout Specifications Available on Page X16



Benefits & Characteristics:

- Self-locking
- All metal design for high temperature resistance
- Hardened alloy for high axial loading capacity
- Easier and faster to install than traditional locknut and lockwasher
- Prevents assembly from loosening due to vibration, shock and torque
- Eliminates the need for cutting or repairing shaft keyway
- Infinite adjustment and preloading capability
- Does not damage shaft threads when secured
- Meets and exceeds specifications of ISO 2982-2:2013(E)
- Manufactured in USA and RoHS compliant

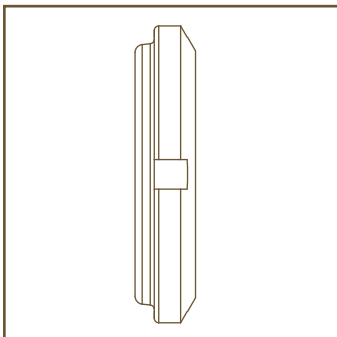
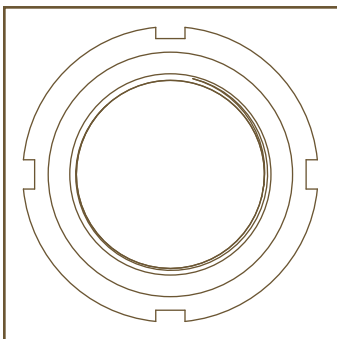
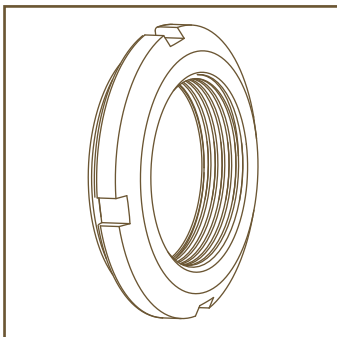
Applications:

- High temperature environments
- High precision applications
- Balanced assembly applications
- Compressors
- Gear box assemblies
- Pumps

Max Operating Temperature: 300 Deg F

Materials:

Locknut - Hardened Alloy
Locking Ring - Spring Steel



Part Number	Thread	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)
BMT-02	M15 X 1.0	25.0	21.0	8.3	40
BMT-03	M17 X 1.0	28.0	24.0	8.3	45
BMT-04	M20 X 1.0	32.0	26.0	9.6	65
BMT-05	M25 X 1.5	38.0	32.0	9.6	73
BMT-06	M30 X 1.5	45.0	38.0	9.9	79
BMT-07	M35 X 1.5	52.0	44.0	11	107
BMT-08	M40 X 1.5	58.0	50.0	12	127
BMT-09	M45 X 1.5	65.0	56.0	13.5	158
BMT-10	M50 X 1.5	70.0	61.0	14.5	176
BMT-11	M55 X 2.0	75.0	67.0	14.5	196
BMT-12	M60 X 2.0	80.0	73.0	14.5	200
BMT-13	M65 X 2.0	85.0	79.0	16.5	230
BMT-14	M70 X 2.0	92.0	85.0	16.5	245

Thread to Face Runout Specifications Available on Page X16

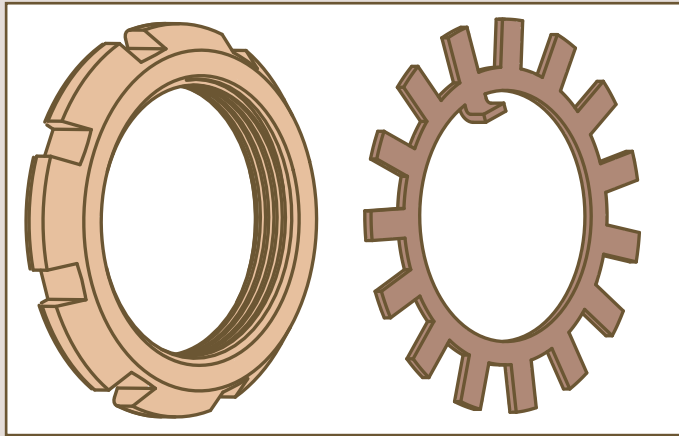
Introduction to Precision Retaining Products

At the start of the twentieth century, the Society of Automotive Engineers established the first American Standard for locknuts and lockwashers. The new standards were considered overly precise and unnecessary for many applications.

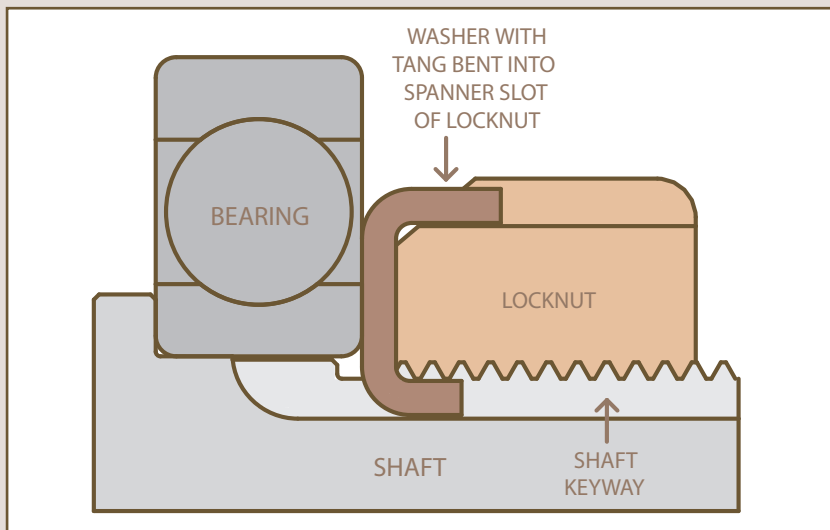
As years passed, engineers and designers throughout industry developed new applications that required manufacturers of bearings and other power transmission components to be even more precise which led to the development of new quality standards. Most noticeable was the Annular Bearing Engineers Committee's standardization of five (5) classes of precision tolerancing with the ABEC-7 (Super-Precision), and ABEC-9 (Ultra-Precision) bearings being universally used in applications to assure better precision, repeatability, and reliability of machinery and equipment.

While standardization and improvements to quality were being made to bearings, evolution to components that held them in place was less progressive. Often high tolerance locknuts and lockwashers were manufactured to order and none were available as standard stocked products.

After requests and inquiries for higher precision retainers increased greatly, Whittet-Higgins developed, manufactured and stocked three (3) series of precision locknuts and two (2) series of precision lockwashers to fulfill the increasing variety of applications requiring greater precision. These products are readily available for use in high-speed gear boxes, high-speed drives and spindles, and machine tools, as well as any application that requires greater precision.



Whittet-Higgins precision series of locknuts and lockwashers are manufactured to super precision tolerances. They are fully interchangeable with the common N-AN and W series. The most noticeable operational improvements are: (1) precision runout and parallelism of the locknut bearing face to the pitch diameter of the thread of the shaft or spindle; (2) eight slots in each locknut which doubles the number of locking positions. The increase in the number of locking positions reduces the advancement of the locknut axially to tenths of thousandths of inches to the succeeding locking position, developing more precise adjustment over an N-AN Series locknut.



The companion lockwashers do not have bent outside diameter tangs so they remain flat and parallel within approximately 0.0002" inches. The surface finish of the faces is not greater than 63 micro inches. To have the greatest precision of flatness the key is not bent, however to have greater locking security the key is bent.



Benefits & Characteristics:

- Double the locking positions of a N/AN locknut
- Matched with PW series lockwashers to secure, lock and retain bearings and power transmission assemblies
- Most precise basic locknut available
- Tighter and more precise adjustment and setting of assemblies
- Prevents assembly loosening due to vibration, shock & torque
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

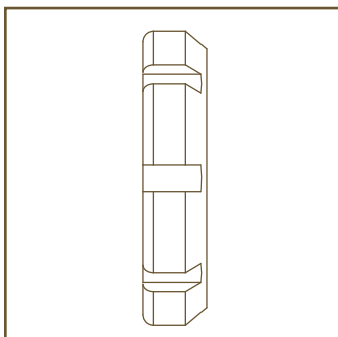
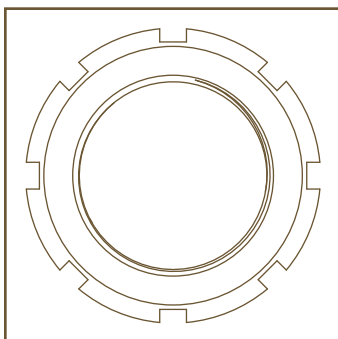
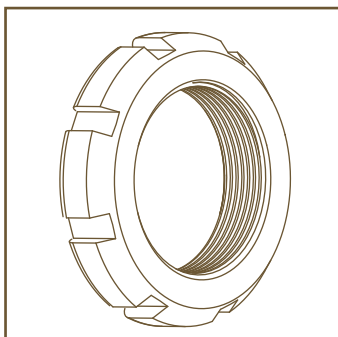
Applications:

- Precision assemblies
- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Locknut - Carbon Steel



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)
PN-00	0.391-32	0.750	0.625	0.229	4100
PN-01	0.469-32	0.875	0.719	0.323	6900
PN-02	0.586-32	1.000	0.813	0.323	8100
PN-03	0.664-32	1.125	0.938	0.354	9900
PN-04	0.781-32	1.375	1.125	0.385	13200
PN-05	0.969-32	1.563	1.281	0.416	16200
PN-06	1.173-18	1.750	1.500	0.416	17500
PN-07	1.376-18	2.063	1.813	0.448	22500
PN-08	1.563-18	2.250	2.000	0.448	23700
PN-09	1.767-18	2.531	2.281	0.448	26500
PN-10	1.967-18	2.688	2.438	0.510	30500
PN-11	2.157-18	2.969	2.656	0.510	34100
PN-12	2.360-18	3.156	2.844	0.541	37000
PN-13	2.548-18	3.375	3.063	0.573	41300
PN-14	2.751-18	3.625	3.313	0.573	44000
PN-15	2.933-12	3.875	3.563	0.604	49800
PN-16	3.137-12	4.156	3.844	0.604	53700
PN-17	3.340-12	4.406	4.031	0.635	59400
PN-18	3.527-12	4.656	4.281	0.698	69200
PN-19	3.730-12	4.938	4.563	0.729	77100
PN-20	3.918-12	5.188	4.813	0.760	84200
PN-21	4.122-12	5.438	5.000	0.760	87800
PN-22	4.325-12	5.719	5.281	0.791	96500
PN-24	4.716-12	6.125	5.688	0.823	104200
PN-26	5.106-12	6.750	6.188	0.885	127600
PN-28	5.497-12	7.094	6.531	0.948	137600
PN-30	5.888-12	7.688	7.063	0.979	157500
PN-32	6.284-8	8.063	7.438	1.041	169900
PN-34	6.659-8	8.656	8.031	1.073	193100
PN-36	7.066-8	9.063	8.375	1.104	202600
PN-38	7.472-8	9.469	8.781	1.135	212000
PN-40	7.847-8	9.844	9.156	1.198	227200

Thread to Face Runout Specifications Available on Page X16



PRECISION LOCKNUT - PL SERIES LEFT HANDED

ANSI / ABMA 8.2-1999 Specification

Benefits & Characteristics:

- Left hand thread prevents clockwise rotating assemblies from loosening
- Double the locking positions of a NL locknut
- Matched with PW series lockwashers to secure, lock and retain bearings and power transmission assemblies
- Most precise basic locknut available
- Tighter and more precise adjustment and setting of assemblies
- Prevents assembly loosening due to vibration, shock, and torque
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

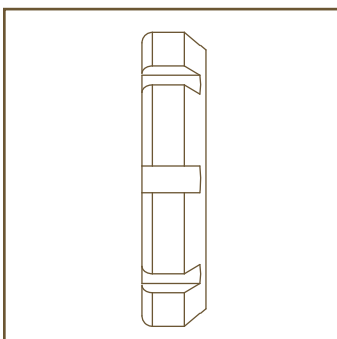
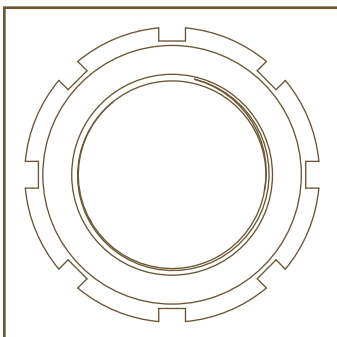
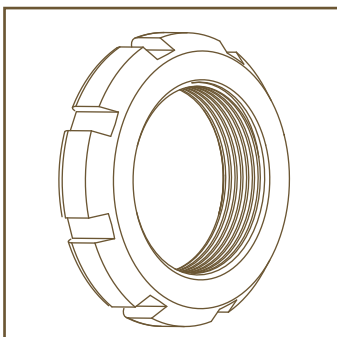
Applications:

- Clockwise rotating assemblies
- Precision assemblies
- Gear box assemblies
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Locknut - Carbon Steel



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)
PL-00	0.391-32	0.750	0.625	0.229	4100
PL-01	0.469-32	0.875	0.719	0.323	6900
PL-02	0.586-32	1.000	0.813	0.323	8100
PL-03	0.664-32	1.125	0.938	0.354	9900
PL-04	0.781-32	1.375	1.125	0.385	13200
PL-05	0.969-32	1.563	1.281	0.416	16200
PL-06	1.173-18	1.750	1.500	0.416	17500
PL-07	1.376-18	2.063	1.813	0.448	22500
PL-08	1.563-18	2.250	2.000	0.448	23700
PL-09	1.767-18	2.531	2.281	0.448	26500
PL-10	1.967-18	2.688	2.438	0.510	30500
PL-11	2.157-18	2.969	2.656	0.510	34100
PL-12	2.360-18	3.156	2.844	0.541	37000
PL-13	2.548-18	3.375	3.063	0.573	41300
PL-14	2.751-18	3.625	3.313	0.573	44000
PL-15	2.933-12	3.875	3.563	0.604	49800
PL-16	3.137-12	4.156	3.844	0.604	53700
PL-17	3.340-12	4.406	4.031	0.635	59400
PL-18	3.527-12	4.656	4.281	0.698	69200
PL-19	3.730-12	4.938	4.563	0.729	77100
PL-20	3.918-12	5.188	4.813	0.760	84200
PL-21	4.122-12	5.438	5.000	0.760	87800
PL-22	4.325-12	5.719	5.281	0.791	96500
PL-24	4.716-12	6.125	5.688	0.823	104200

Thread to Face Runout Specifications Available on Page X16

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

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C2

Engineering & Sales Support: (401) 728-0700



PRECISION LOCKNUT - PT SERIES SMALL PROFILE

ANSI / ABMA 8.2-1999 Specification

Benefits & Characteristics:

- For lighter axial loading precision applications
- Double the locking positions of a NT locknut
- Matched with PWT & PWTF series lockwashers to secure, lock and retain bearings and power transmission assemblies
- Smaller diameter & thickness for limited spaces
- Most precise basic light duty locknut available
- Tighter and more precise adjustment and setting of assemblies
- Prevents assembly loosening due to vibration, shock, and torque
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

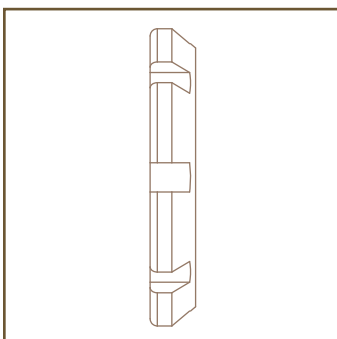
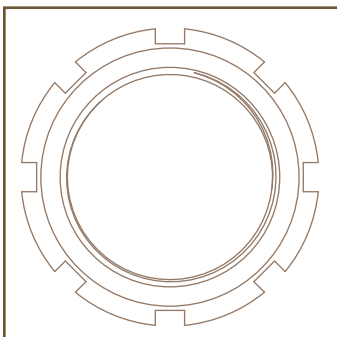
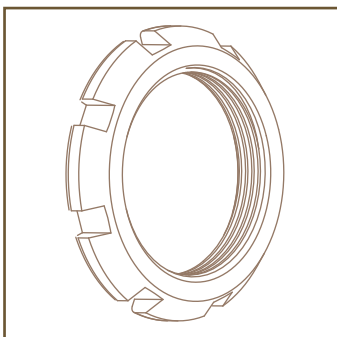
Applications:

- Limited space applications
- Precision assemblies
- Gear box assemblies
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Locknut - Carbon Steel



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)
PT-00	0.391-32	0.719	0.531	0.198	3400
PT-01	0.469-32	0.812	0.625	0.198	3900
PT-02	0.586-32	0.938	0.750	0.229	5200
PT-03	0.664-32	1.062	0.875	0.229	5900
PT-04	0.781-32	1.188	1.000	0.260	7400
PT-05	0.969-32	1.375	1.188	0.260	8110
PT-06	1.173-18	1.688	1.438	0.260	10100
PT-07	1.376-18	1.906	1.656	0.291	12300
PT-08	1.563-18	2.094	1.844	0.291	12900
PT-09	1.767-18	2.312	2.062	0.291	13800
PT-10	1.967-18	2.500	2.250	0.322	15600
PT-11	2.157-18	2.750	2.500	0.322	17200
PT-12	2.360-18	2.938	2.688	0.322	17400
PT-13	2.548-18	3.125	2.875	0.354	19600
PT-14	2.751-18	3.344	3.094	0.354	20300
PT-15	2.933-12	3.688	3.375	0.354	24700
PT-16	3.137-12	3.906	3.594	0.385	27900
PT-17	3.340-12	4.125	3.812	0.385	28800
PT-18	3.527-12	4.312	4.000	0.385	29200

Thread to Face Runout Specifications Available on Page X16

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C3

Engineering & Sales Support: (401) 728-0700



PRECISION LOCKWASHER - PW SERIES INCH

ANSI / ABMA 8.2-1999 Specification

Benefits & Characteristics:

- Precision ground parallel faces ensure assembly straightness to thread shaft
- Matched with PW series locknuts to secure, lock, and retain bearings and power transmission assemblies
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- No special tools required for installation
- Effective on soft and hardened shafts
- Works with TAN series of locknuts
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

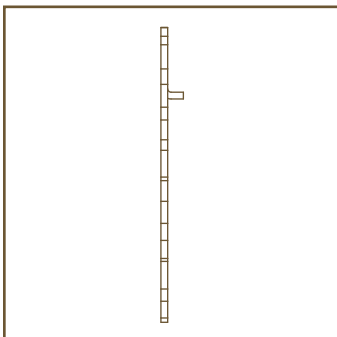
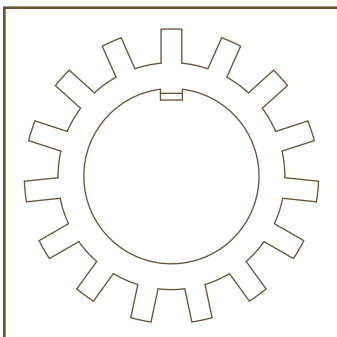
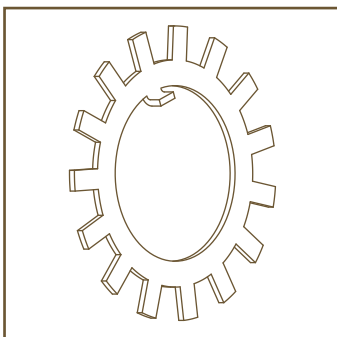
Applications:

- Precision assemblies
- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Lockwasher - Carbon Steel



Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)
PW-00	0.406	0.937	0.640	0.042
PW-01	0.484	1.109	0.734	0.042
PW-02	0.601	1.250	0.827	0.055
PW-03	0.679	1.437	0.953	0.055
PW-04	0.801	1.656	1.140	0.055
PW-05	0.989	1.813	1.296	0.058
PW-06	1.193	2.062	1.515	0.058
PW-065	1.333	2.328	1.827	0.058
PW-07	1.396	2.360	1.827	0.058
PW-08	1.583	2.578	2.030	0.067
PW-09	1.792	2.844	2.311	0.067
PW-10	1.992	3.031	2.468	0.067
PW-11	2.182	3.203	2.686	0.067
PW-12	2.400	3.453	2.874	0.078
PW-13	2.588	3.703	3.093	0.078
PW-14	2.791	3.953	3.343	0.078
PW-15	2.973	4.219	3.593	0.091
PW-16	3.177	4.500	3.874	0.091
PW-17	3.395	4.750	4.061	0.091
PW-18	3.582	5.078	4.326	0.119
PW-19	3.800	5.359	4.607	0.119
PW-20	3.988	5.625	4.858	0.119
PW-21	4.192	5.843	5.045	0.119
PW-22	4.395	6.219	5.326	0.135
PW-24	4.801	6.641	5.733	0.155
PW-26	5.191	7.203	6.233	0.155
PW-28	5.582	7.609	6.576	0.155
PW-30	5.983	8.219	7.123	0.195
PW-32	6.389	8.609	7.498	0.195
PW-34	6.764	9.250	8.091	0.195
PW-36	7.171	9.625	8.435	0.195
PW-38	7.577	10.109	8.841	0.195
PW-40	7.982	10.594	9.216	0.195

Face Flatness Specifications Available on Page X17

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

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C4

Engineering & Sales Support: (401) 728-0700



PRECISION LOCKWASHER - PW SERIES INCH - FLAT

ANSI / ABMA 8.2-1999 Specification

Benefits & Characteristics:

- Precision ground parallel faces ensure assembly straightness to thread shaft
- Matched with PW series locknuts to secure, lock and retain bearings and power transmission assemblies
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- No special tools required for installation
- Effective on soft and hardened shafts
- Works with TAN series of locknuts
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

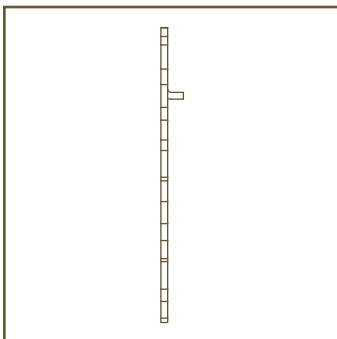
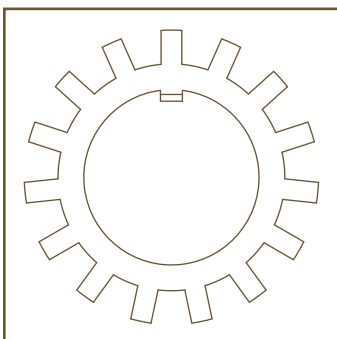
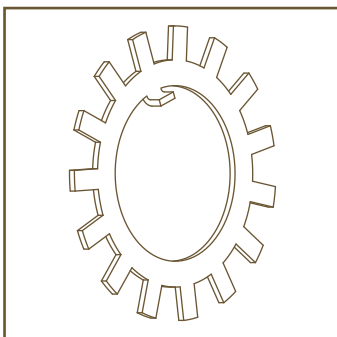
Applications:

- Precision assemblies
- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Lockwasher - Carbon Steel



Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)
PWF-00	0.406	0.937	0.640	0.042
PWF-01	0.484	1.109	0.734	0.042
PWF-02	0.601	1.250	0.827	0.055
PWF-03	0.679	1.437	0.953	0.055
PWF-04	0.801	1.656	1.140	0.055
PWF-05	0.989	1.813	1.296	0.058
PWF-06	1.193	2.062	1.515	0.058
PWF-065	1.333	2.328	1.827	0.058
PWF-07	1.396	2.360	1.827	0.058
PWF-08	1.583	2.578	2.030	0.067
PWF-09	1.792	2.844	2.311	0.067
PWF-10	1.992	3.031	2.468	0.067
PWF-11	2.182	3.203	2.686	0.067
PWF-12	2.400	3.453	2.874	0.078
PWF-13	2.588	3.703	3.093	0.078
PWF-14	2.791	3.953	3.343	0.078
PWF-15	2.973	4.219	3.593	0.091
PWF-16	3.177	4.500	3.874	0.091
PWF-17	3.395	4.750	4.061	0.091
PWF-18	3.582	5.078	4.326	0.119
PWF-19	3.800	5.359	4.607	0.119
PWF-20	3.988	5.625	4.858	0.119
PWF-21	4.192	5.843	5.045	0.119
PWF-22	4.395	6.219	5.326	0.135
PWF-24	4.801	6.641	5.733	0.155
PWF-26	5.191	7.203	6.233	0.155
PWF-28	5.582	7.609	6.576	0.155
PWF-30	5.983	8.219	7.123	0.195
PWF-32	6.389	8.609	7.498	0.195
PWF-34	6.764	9.250	8.091	0.195
PWF-36	7.171	9.625	8.435	0.195
PWF-38	7.577	10.109	8.841	0.195
PWF-40	7.982	10.594	9.216	0.195

Face Flatness Specifications Available on Page X17

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

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C5

Engineering & Sales Support: (401) 728-0700



PRECISION LOCKWASHER - PWT SERIES SMALL PROFILE

ANSI / ABMA 8.2-1999 SPECIFICATIONS

Benefits & Characteristics:

- Precision ground parallel faces ensure assembly straightness to threaded shaft
- For lighter axial loading applications
- Matched with PT series locknuts to secure, lock, and retain bearings and power transmission assemblies
- Smaller diameter and thickness for limited spaces
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets and exceeds specifications for ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

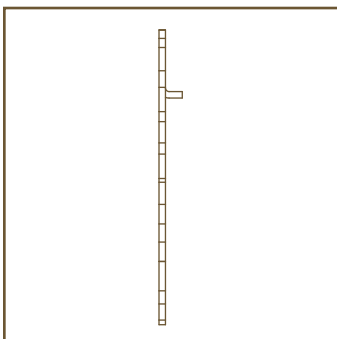
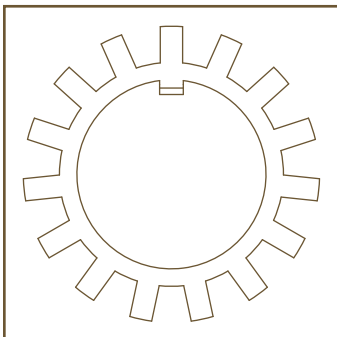
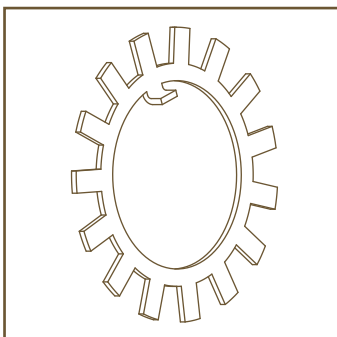
Applications:

- Precision assemblies
- Limited space applications
- Gear box assemblies
- Compressors
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Lockwasher - Carbon Steel



Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)
PWT-00	0.406	0.921	0.551	0.042
PWT-01	0.484	1.000	0.645	0.042
PWT-02	0.601	1.187	0.770	0.042
PWT-03	0.679	1.296	0.895	0.042
PWT-04	0.801	1.484	1.020	0.042
PWT-05	0.989	1.671	1.208	0.050
PWT-06	1.193	1.984	1.458	0.050
PWT-07	1.396	2.203	1.676	0.050
PWT-08	1.583	2.343	1.864	0.064
PWT-09	1.792	2.625	2.082	0.064
PWT-10	1.992	2.797	2.270	0.064
PWT-11	2.182	3.062	2.520	0.064
PWT-12	2.400	3.328	2.708	0.064
PWT-13	2.588	3.515	2.895	0.064
PWT-14	2.791	3.734	3.114	0.064
PWT-15	2.973	4.093	3.395	0.064
PWT-16	3.177	4.296	3.614	0.064
PWT-17	3.395	4.515	3.832	0.064
PWT-18	3.582	4.703	4.020	0.064

Face Flatness Specifications Available on Page X17

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

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C6

Engineering & Sales Support: (401) 728-0700



PRECISION LOCKWASHER - PWT SERIES SMALL PROFILE - FLAT

ANSI / ABMA 8.2-1999 SPECIFICATIONS

Benefits & Characteristics:

- Precision ground parallel faces ensure assembly straightness to threaded shaft
- For lighter axial loading applications
- Matched with PT series locknuts to secure, lock, and retain bearings and power transmission assemblies
- Smaller diameter and thickness for limited spaces
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets and exceeds specifications for ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

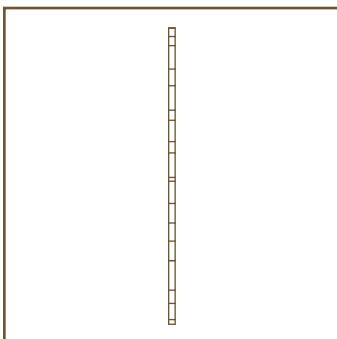
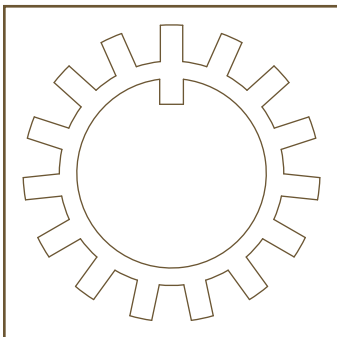
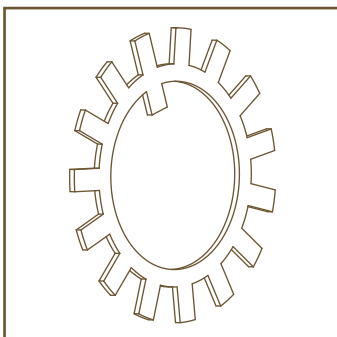
Applications:

- Precision assemblies
- Limited space applications
- Gear box assemblies
- Compressors
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Lockwasher - Carbon Steel



Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)
PWT-00	0.406	0.921	0.551	0.042
PWT-01	0.484	1.000	0.645	0.042
PWT-02	0.601	1.187	0.770	0.042
PWT-03	0.679	1.296	0.895	0.042
PWT-04	0.801	1.484	1.020	0.042
PWT-05	0.989	1.671	1.208	0.050
PWT-06	1.193	1.984	1.458	0.050
PWT-07	1.396	2.203	1.676	0.050
PWT-08	1.583	2.343	1.864	0.064
PWT-09	1.792	2.625	2.082	0.064
PWT-10	1.992	2.797	2.270	0.064
PWT-11	2.182	3.062	2.520	0.064
PWT-12	2.400	3.328	2.708	0.064
PWT-13	2.588	3.515	2.895	0.064
PWT-14	2.791	3.734	3.114	0.064
PWT-15	2.973	4.093	3.395	0.064
PWT-16	3.177	4.296	3.614	0.064
PWT-17	3.395	4.515	3.832	0.064
PWT-18	3.582	4.703	4.020	0.064

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

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C7

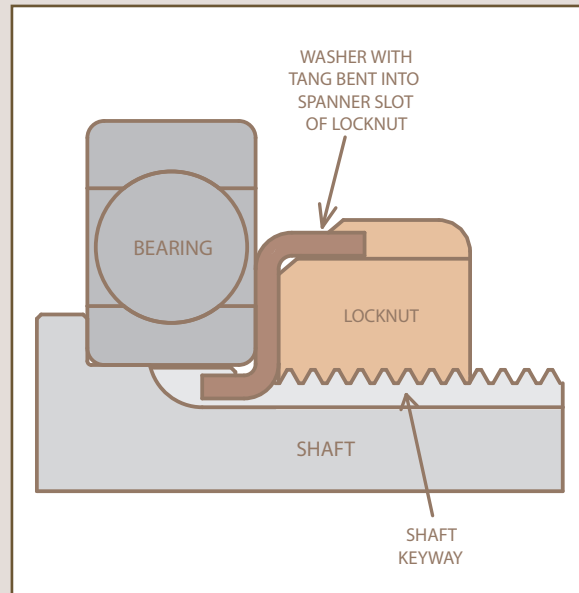
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Introduction to Basic Retaining Products

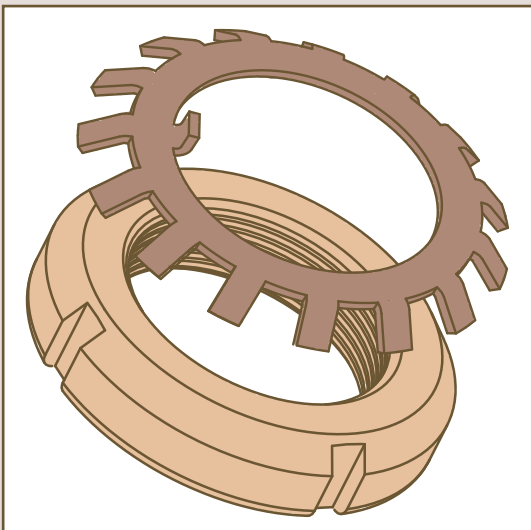
The exact time and place of origin of the threaded fastener is unknown, however the first known application of threaded components dates back to the Bronze Age (3300 – 1200 B.C.) where primitive tools with helical structure were being used in basic farming equipment. Into the Iron Age, around 300 B.C., helical shaft water screws became widely used through the Mediterranean as pumps to move water for irrigational purposes.

The application and use of helical threaded shafts greatly expanded in the Middle Ages when people realized that helical threaded shafts could be used to move and exert forces. Helical threaded shafts were quickly adapted to press olives and grapes. In 1568, Jacque Besson of France manufactured the first threading machinery to create uniform threaded shafts and their corresponding threaded components. Beginning with the industrial revolutions in England in 18th century, the helical thread became the basis for all construction of industrial equipment for grain and textile mills.

At the start of the twentieth century, the Society of Automotive Engineers established the first American standard for locknuts and lockwashers, which Whittet-Higgins still manufactures. These basic shaft locknuts and lockwashers for bearing and power transmission assemblies function by mounting a keyed and tanged lockwasher between the bearing or other power transmission component and the corresponding locknut. The locknut is mounted and torqued up the shaft, forcing the lockwasher forward until the desired preload and assembly seating is established. The locknut is rotationally adjusted to have the nearest slot and tang align; then the tang of the lockwasher is bent into the slot of the locknut, preventing the power transmission components from disassembling during operation.



These bearing locknuts and lockwashers can offer adequate precision adjustment and loading of bearings and other power transmission components, and are effective on both soft and hardened threaded shafts.



Whittet-Higgins Company manufactures the largest selection of general use and application specific locknuts and lockwashers. It has been the leader in designing, innovating and manufacturing precision threaded retaining devices for infinite array of industrial and consumer bearing and power transmission assemblies for over fifty years. It has designed, engineered and tested thousands of unique retaining devices not in this catalogue.

Whether inch or metric dimensions and threads, small or large profile, carbon, alloy, corrosion resistant steel, hardened or high strength materials, Whittet-Higgins Company can design and manufacture a retaining device that will fit your specific needs and requirements.



LOCKNUT - N/AN SERIES - INCH

ANSI / ABMA 8.2-1999 Specification

Benefits & Characteristics:

- Matched with W series lockwashers to secure, lock and retain bearings and power transmission assemblies
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient inch bearing locknut line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Interchangeable with TAN series of locknuts
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

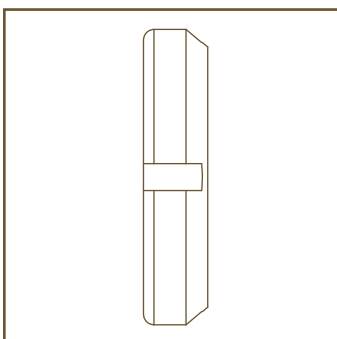
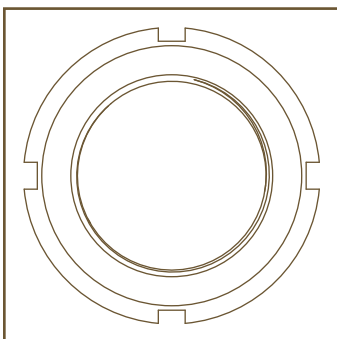
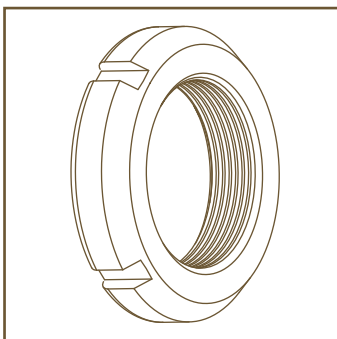
Applications:

- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Packaging equipment
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Locknut - Carbon Steel



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)
N-00	0.391-32	0.750	0.625	0.229	4100
N-01	0.469-32	0.875	0.719	0.323	6900
N-02	0.586-32	1.000	0.813	0.323	8100
N-03	0.664-32	1.125	0.938	0.354	9900
N-04	0.781-32	1.375	1.125	0.385	13200
N-05	0.969-32	1.563	1.281	0.416	16200
N-06	1.173-18	1.750	1.500	0.416	17500
N-065	1.312-18	2.063	1.813	0.448	21900
N-07	1.376-18	2.063	1.813	0.448	22500
N-08	1.563-18	2.250	2.000	0.448	23700
N-09	1.767-18	2.531	2.281	0.448	26500
N-10	1.967-18	2.688	2.438	0.510	30500
N-11	2.157-18	2.969	2.656	0.510	34100
N-12	2.360-18	3.156	2.844	0.541	37000
N-13	2.548-18	3.375	3.063	0.573	41300
N-14	2.751-18	3.625	3.313	0.573	44000
AN-15	2.933-12	3.875	3.563	0.604	49800
AN-16	3.137-12	4.156	3.844	0.604	53700
AN-17	3.340-12	4.406	4.031	0.635	59400
AN-18	3.527-12	4.656	4.281	0.698	69200
AN-19	3.730-12	4.938	4.563	0.729	77100
AN-20	3.918-12	5.188	4.813	0.760	84200
AN-21	4.122-12	5.438	5.000	0.760	87800
AN-22	4.325-12	5.719	5.281	0.791	96500
AN-24	4.716-12	6.125	5.688	0.823	104200
AN-26	5.106-12	6.750	6.188	0.885	127600
AN-28	5.497-12	7.094	6.531	0.948	137600
AN-30	5.888-12	7.688	7.063	0.979	157500
AN-32	6.284-8	8.063	7.438	1.041	169900
AN-34	6.659-8	8.656	8.031	1.073	193100
AN-36	7.066-8	9.063	8.375	1.104	202600
AN-38	7.472-8	9.469	8.781	1.135	212000
AN-40	7.847-8	9.844	9.156	1.198	227200
N-44	8.628-8	11.000	9.843	1.260	276900

Thread to Face Runout Specifications Available on Page X16

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

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D1

Engineering & Sales Support: (401) 728-0700



LOCKNUT - NE SERIES - 11 TPI

ORIGINAL SAE THREAD SERIES

Benefits & Characteristics:

- Eleven threads per inch for legacy equipment
- Matched with W series lockwashers to secure, lock and retain bearings and power transmission assemblies
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient inch bearing locknut line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Manufactured in USA and RoHS compliant

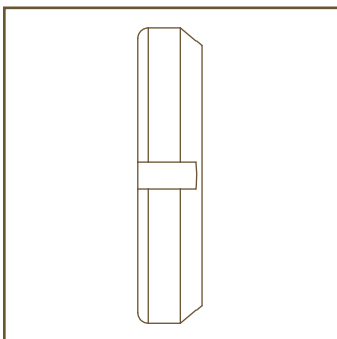
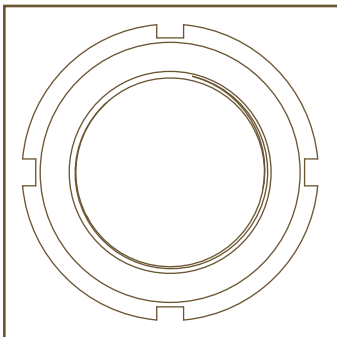
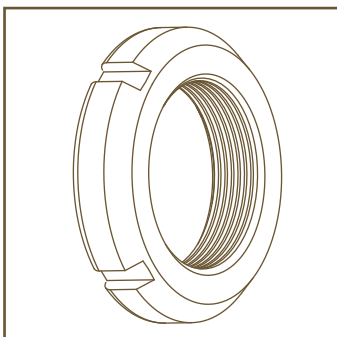
Applications:

- Repair of older an historic equipment
- Lumber mills
- Pumps
- Non-balanced assemblies
- Paper conversion equipment
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Locknut - Carbon Steel



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)
NE-15	2.938-11	3.875	3.563	0.604	49800
NE-16	3.142-11	4.156	3.844	0.604	53700
NE-17	3.345-11	4.406	4.031	0.635	59400
NE-18	3.532-11	4.656	4.281	0.698	69200
NE-19	3.736-11	4.938	4.563	0.729	77100
NE-20	3.923-11	5.188	4.813	0.760	84200
NE-21	4.127-11	5.438	5.000	0.760	87800
NE-22	4.330-11	5.719	5.281	0.791	96500
NE-24	4.721-11	6.125	5.688	0.823	104200
NE-26	5.111-11	6.750	6.188	0.885	127600
NE-28	5.502-11	7.094	6.531	0.948	137600
NE-30	5.893-11	7.688	7.063	0.979	157500
NE-32	6.300-11	8.063	7.438	1.041	169900
NE-34	6.690-11	8.656	8.031	1.073	193100
NE-36	7.082-11	9.063	8.375	1.104	202600
NE-38	7.472-11	9.469	8.781	1.135	212000
NE-40	7.863-11	9.844	9.156	1.198	227200

Thread to Face Runout Specifications Available on Page X16

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

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at www.whittet-higgins.com

D2

Engineering & Sales Support: (401) 728-0700



Benefits & Characteristics:

- For high axial loading applications
- Matched with WH series lockwashers to secure, lock and retain bearings and power transmission assemblies
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient inch bearing locknut line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Interchangeable with TAN series of locknuts
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

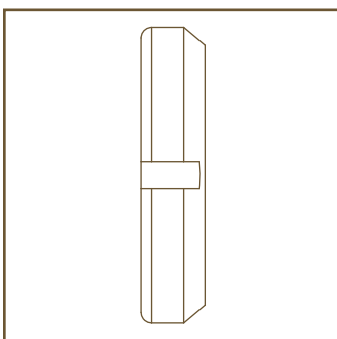
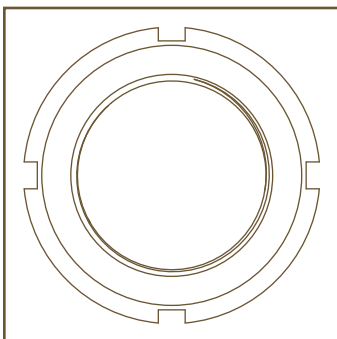
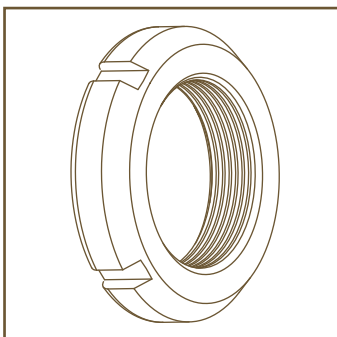
Applications:

- High axial load applications
- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Locknut - Carbon Steel



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)
NH-08	1.563-18	2.250	2.000	0.572	30400
NH-09	1.767-18	2.531	2.281	0.572	34100
NH-10	1.967-18	2.688	2.438	0.635	38200
NH-11	2.157-18	2.969	2.656	0.635	42600
NH-12	2.360-18	3.156	2.844	0.666	45700
NH-13	2.548-18	3.375	3.063	0.728	52800
NH-14	2.751-18	3.625	3.313	0.728	56200
NH-15	2.933-12	3.875	3.563	0.760	62900
NH-16	3.137-12	4.156	3.844	0.760	67800
NH-17	3.340-12	4.406	4.031	0.791	74400
NH-18	3.527-12	4.656	4.281	0.885	88100
NH-19	3.730-12	4.938	4.563	0.916	97200
NH-20	3.918-12	5.188	4.813	0.947	105700
NH-21	4.122-12	5.438	5.000	0.947	110100
NH-22	4.325-12	5.719	5.281	0.978	120100
NH-24	4.716-12	6.125	5.688	1.041	132700
NH-26	5.106-12	6.750	6.188	1.103	160100
NH-28	5.497-12	7.094	6.531	1.197	174700
NH-30	5.888-12	7.688	7.063	1.260	203800
NH-32	6.284-8	8.063	7.438	1.291	211700
NH-34	6.659-8	8.656	8.031	1.353	244700
NH-36	7.066-8	9.063	8.375	1.416	261100
NH-38	7.472-8	9.469	8.781	1.416	265600
NH-40	7.847-8	9.844	9.156	1.510	287500

Thread to Face Runout Specifications Available on Page X16



whittet-higgins company

Benefits & Characteristics:

- Sixteen threads per inch for finer assembly adjustment
- For high axial loading applications
- Matched with WI series lockwashers to secure, lock and retain bearings and power transmission assemblies
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient inch bearing locknut line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Manufactured in USA and RoHS compliant

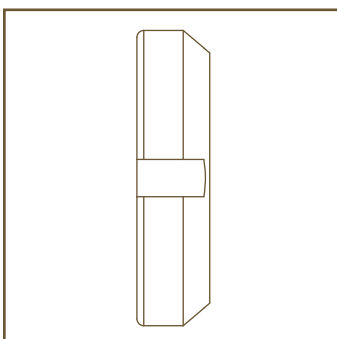
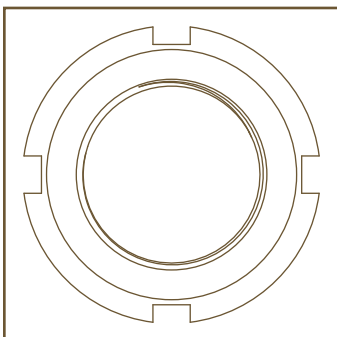
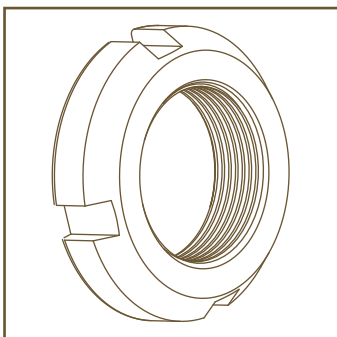
Applications:

- Fine adjustment applications
- High axial load applications
- Construction equipment
- Mining equipment
- Aggregate crushers
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Locknut - Carbon Steel



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)
NI-01	0.750-16	1.500	1.188	0.385	14100
NI-02	0.875-16	1.625	1.313	0.385	15600
NI-03	1.000-16	1.750	1.438	0.385	16900
NI-04	1.125-16	1.875	1.563	0.385	18100
NI-05	1.250-16	2.000	1.688	0.510	25500
NI-06	1.375-16	2.250	1.938	0.510	27600
NI-07	1.500-16	2.250	1.938	0.510	28000
NI-08	1.625-16	2.500	2.188	0.510	31400
NI-09	1.750-16	2.625	2.313	0.510	32500
NI-10	1.875-16	2.750	2.438	0.510	33600
NI-11	2.000-16	3.000	2.688	0.510	37200
NI-12	2.250-16	3.250	2.875	0.635	49000
NI-13	2.500-16	3.500	3.125	0.635	51300
NI-14	2.750-16	3.750	3.375	0.635	53200
NI-15	3.000-16	4.000	3.625	0.635	55000
NI-16	3.250-16	4.500	4.000	0.760	78100
NI-17	3.500-16	4.750	4.250	0.760	80400
NI-18	3.750-16	5.250	4.750	0.760	92300

Thread to Face Runout Specifications Available on Page X16

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

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D4

Engineering & Sales Support: (401) 728-0700



LOCKNUT - NL SERIES - LEFT-HANDED

ANSI / ABMA 8.2-1999 Specification

Benefits & Characteristics:

- Left hand thread prevents clockwise rotating assemblies from loosening
- Matched with W series lockwashers to secure, lock and retain bearings and power transmission assemblies
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient inch bearing locknut line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

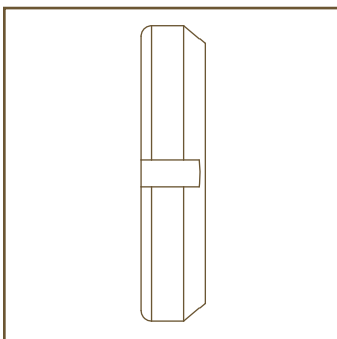
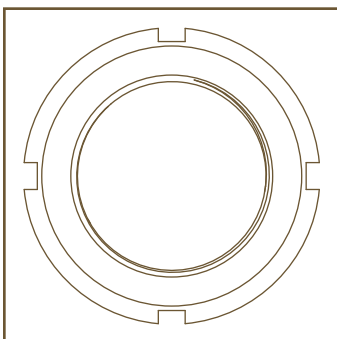
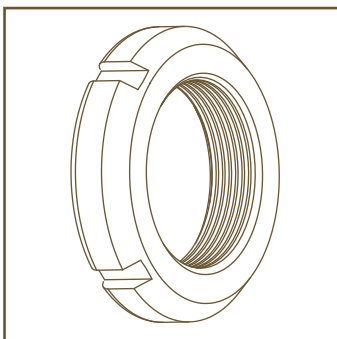
Applications:

- Clockwise rotating assemblies
- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Locknut - Carbon Steel



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)
NL-00	0.391-32	0.750	0.625	0.229	4100
NL-01	0.469-32	0.875	0.719	0.323	6900
NL-02	0.586-32	1.000	0.813	0.323	8100
NL-03	0.664-32	1.125	0.938	0.354	9900
NL-04	0.781-32	1.375	1.125	0.385	13200
NL-05	0.969-32	1.563	1.281	0.416	16200
NL-06	1.173-18	1.750	1.500	0.416	17500
NL-07	1.376-18	2.063	1.813	0.448	22500
NL-08	1.563-18	2.250	2.000	0.448	23700
NL-09	1.767-18	2.531	2.281	0.448	26500
NL-10	1.967-18	2.688	2.438	0.510	30500
NL-11	2.157-18	2.969	2.656	0.510	34100
NL-12	2.360-18	3.156	2.844	0.541	37000
NL-13	2.548-18	3.375	3.063	0.573	41300
NL-14	2.751-18	3.625	3.313	0.573	44000
NL-15	2.933-12	3.875	3.563	0.604	49800
NL-16	3.137-12	4.156	3.844	0.604	53700
NL-17	3.340-12	4.406	4.031	0.635	59400
NL-18	3.527-12	4.656	4.281	0.698	69200
NL-19	3.730-12	4.938	4.563	0.729	77100
NL-20	3.918-12	5.188	4.813	0.760	84200
NL-21	4.122-12	5.438	5.000	0.760	87800
NL-22	4.325-12	5.719	5.281	0.791	96500
NL-24	4.716-12	6.125	5.688	0.823	104200
NL-26	5.106-12	6.750	6.188	0.885	127600
NL-28	5.497-12	7.094	6.531	0.948	137600
NL-30	5.888-12	7.688	7.063	0.979	157500
NL-32	6.284-8	8.063	7.438	1.041	169900
NL-34	6.659-8	8.656	8.031	1.073	193100
NL-36	7.066-8	9.063	8.375	1.104	202600
NL-38	7.472-8	9.469	8.781	1.135	212000
NL-40	7.847-8	9.844	9.156	1.198	227200

Thread to Face Runout Specifications Available on Page X16

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D5

Engineering & Sales Support: (401) 728-0700



LOCKNUT - NS SERIES - STAINLESS

ANSI / ABMA 8.2-1999 Specification

Benefits & Characteristics:

- Corrosion resistant stainless steel
- Matched with WS series lockwashers to secure, lock and retain bearings and power transmission assemblies
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient inch bearing locknut line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

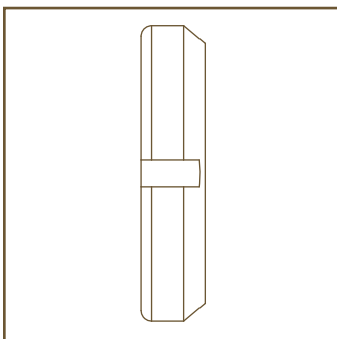
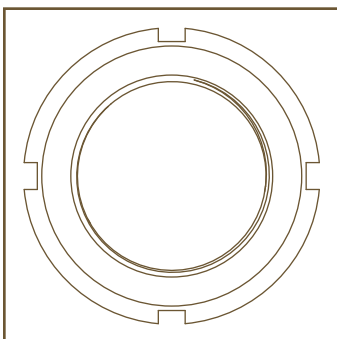
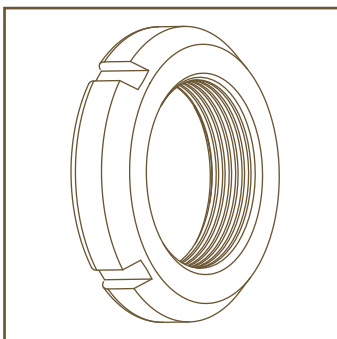
Applications:

- Corrosive environments
- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Locknut - Stainless Steel



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)
NS-00	0.391-32	0.750	0.625	0.229	2800
NS-01	0.469-32	0.875	0.719	0.323	4700
NS-02	0.586-32	1.000	0.813	0.323	5400
NS-03	0.664-32	1.125	0.938	0.354	6600
NS-04	0.781-32	1.375	1.125	0.385	8900
NS-05	0.969-32	1.563	1.281	0.416	10800
NS-06	1.173-18	1.750	1.500	0.416	11700
NS-07	1.376-18	2.063	1.813	0.448	15000
NS-08	1.563-18	2.250	2.000	0.448	15800
NS-09	1.767-18	2.531	2.281	0.448	17700
NS-10	1.967-18	2.688	2.438	0.510	20400
NS-11	2.157-18	2.969	2.656	0.510	22700
NS-12	2.360-18	3.156	2.844	0.541	24700
NS-13	2.548-18	3.375	3.063	0.573	27600
NS-14	2.751-18	3.625	3.313	0.573	29300
NS-15	2.933-12	3.875	3.563	0.604	33200
NS-16	3.137-12	4.156	3.844	0.604	35800
NS-17	3.340-12	4.406	4.031	0.635	39700
NS-18	3.527-12	4.656	4.281	0.698	46200
NS-19	3.730-12	4.938	4.563	0.729	51400
NS-20	3.918-12	5.188	4.813	0.760	56200
NS-21	4.122-12	5.438	5.000	0.760	58600
NS-22	4.325-12	5.719	5.281	0.791	64400
NS-24	4.716-12	6.125	5.688	0.823	69500
NS-26	5.106-12	6.750	6.188	0.885	85100
NS-28	5.497-12	7.094	6.531	0.948	91800
NS-30	5.888-12	7.688	7.063	0.979	105000
NS-32	6.284-8	8.063	7.438	1.041	113300
NS-34	6.659-8	8.656	8.031	1.073	128700
NS-36	7.066-8	9.063	8.375	1.104	135100
NS-38	7.472-8	9.469	8.781	1.135	141300
NS-40	7.847-8	9.844	9.156	1.198	151500

Thread to Face Runout Specifications Available on Page X16

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D6

Engineering & Sales Support: (401) 728-0700



Benefits & Characteristics:

- For lighter axial loading applications
- Matched with WT series lockwashers to secure, lock and retain bearings and power transmission assemblies
- Smaller diameter & thickness for limited spaces
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient inch bearing locknut line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

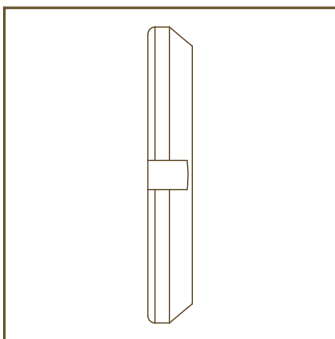
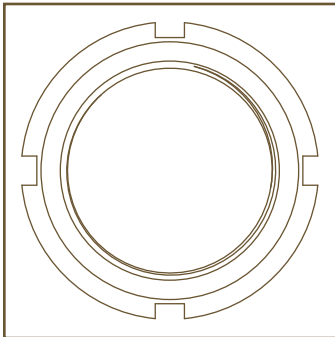
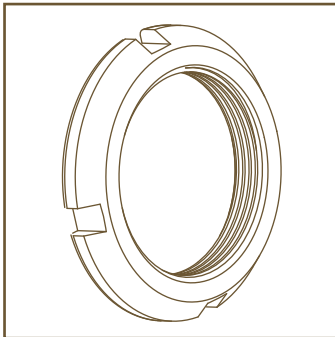
Applications:

- Limited space applications
- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Locknut - Carbon Steel



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)
NT-00	0.391-32	0.719	0.531	0.198	3400
NT-01	0.469-32	0.812	0.625	0.198	3900
NT-02	0.586-32	0.938	0.750	0.229	5200
NT-03	0.664-32	1.062	0.875	0.229	5900
NT-04	0.781-32	1.188	1.000	0.260	7400
NT-05	0.969-32	1.375	1.188	0.260	8110
NT-06	1.173-18	1.688	1.438	0.260	10100
NT-07	1.376-18	1.906	1.656	0.291	12300
NT-08	1.563-18	2.094	1.844	0.291	12900
NT-09	1.767-18	2.312	2.062	0.291	13800
NT-10	1.967-18	2.500	2.250	0.322	15600
NT-11	2.157-18	2.750	2.500	0.322	17200
NT-12	2.360-18	2.938	2.688	0.322	17400
NT-13	2.548-18	3.125	2.875	0.354	19600
NT-14	2.751-18	3.344	3.094	0.354	20300
NT-15	2.933-12	3.688	3.375	0.354	24700
NT-16	3.137-12	3.906	3.594	0.385	27900
NT-17	3.340-12	4.125	3.812	0.385	28800
NT-18	3.527-12	4.312	4.000	0.385	29200

Thread to Face Runout Specifications Available on Page X16



Benefits & Characteristics:

- For lighter axial loading applications
- Matched with W-000 series lockwashers to secure, lock and retain bearings and power transmission assemblies
- Sizes 048 and larger include PP locking plate for installation
- Smaller diameter and thickness for limited spaces
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

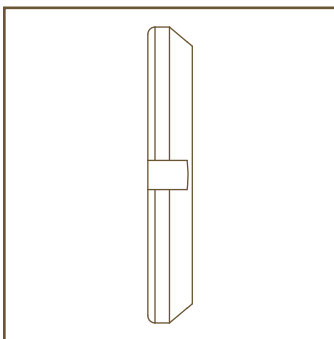
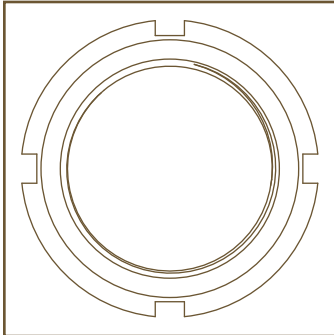
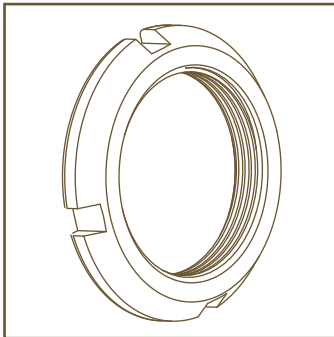
Applications:

- Limited space applications
- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Locknut - Carbon Steel



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)
N-022	4.325-12	5.312	4.901	0.791	77500
N-024	4.716-12	5.688	5.313	0.823	81500
N-026	5.106-12	6.125	5.703	0.885	92600
N-028	5.497-12	6.500	6.109	0.948	99800
N-030	5.888-12	7.125	6.688	0.979	122800
N-032	6.284-8	7.500	7.094	1.041	130900
N-034	6.659-8	7.875	7.484	1.073	136800
N-036	7.066-8	8.250	7.875	1.104	139700
N-038	7.472-8	8.688	8.266	1.135	148300
N-040	7.847-8	9.437	8.750	1.198	194700
N-044	8.628-8	10.250	9.531	1.260	212700
N-048	9.442-8	11.438	10.625	1.354	273300
N-052	10.192-6	12.188	11.406	1.416	291200
N-056	11.004-6	13.000	12.219	1.510	316100
N-060	11.785-6	14.188	13.219	1.573	385600
N-064	12.562-6	15.000	14.031	1.666	419300
N-068	13.303-5	15.750	14.831	1.791	434000
N-072	14.134-5	16.500	15.500	1.791	446200
N-076	14.921-5	17.755	16.625	1.916	553000
N-080	15.709-5	18.505	17.438	2.073	595000
N-084	16.495-5	19.318	18.188	2.073	605000
N-088	17.283-5	20.505	19.250	2.385	780000

Thread to Face Runout Specifications Available on Page X16

Benefits & Characteristics:

- Matched with MB series lockwashers to secure, lock and retain bearings and power transmission assemblies
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient metric bearing locknut line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets and exceeds specifications of ISO 2982-2:2013(E)
- Manufactured in USA and RoHS compliant

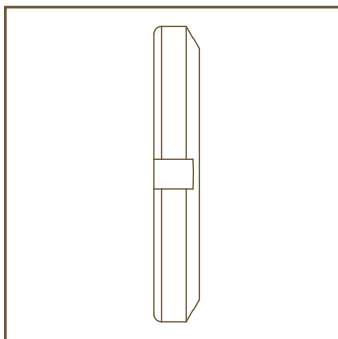
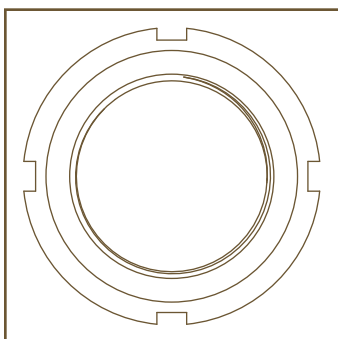
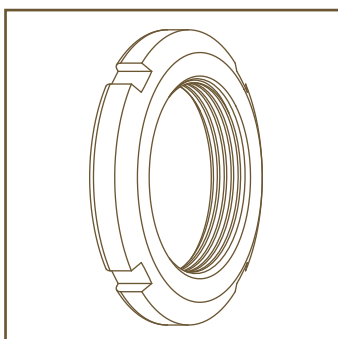
Applications:

- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Packaging equipment
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Locknut - Carbon Steel



Part Number	Thread	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)
KM-00	M10 x 0.75	18.0	13.5	4.0	12
KM-01	M12 X 1.0	22.0	17.0	4.0	15
KM-02	M15 X 1.0	25.0	21.0	5.0	20
KM-03	M17 X 1.0	28.0	24.0	5.0	24
KM-04	M20 X 1.0	32.0	26.0	6.0	32
KM-044	M22 X 1.0	34.0	28.0	6.0	34
KM-05	M25 X 1.5	38.0	32.0	7.0	44
KM-056	M28 X 1.5	42.0	36.0	7.0	49
KM-06	M30 X 1.5	45.0	38.0	7.0	53
KM-064	M32 X 1.5	48.0	40.0	8.0	64
KM-07	M35 X 1.5	52.0	44.0	8.0	69
KM-08	M40 X 1.5	58.0	50.0	9.0	85
KM-09	M45 X 1.5	65.0	56.0	10.0	106
KM-10	M50 X 1.5	70.0	61.0	11.0	122
KM-11	M55 X 2.0	75.0	67.0	11.0	126
KM-12	M60 X 2.0	80.0	73.0	11.0	130
KM-13	M65 X 2.0	85.0	79.0	12.0	147
KM-14	M70 X 2.0	92.0	85.0	12.0	160
KM-15	M75 X 2.0	98.0	90.0	13.0	183
KM-16	M80 X 2.0	105.0	95.0	15.0	229
KM-17	M85 X 2.0	110.0	102.0	16.0	250
KM-18	M90 X 2.0	120.0	108.0	16.0	287
KM-19	M95 X 2.0	125.0	113.0	17.0	311
KM-20	M100 X 2.0	130.0	120.0	18.0	334
KM-21	M105 X 2.0	140.0	126.0	18.0	376
KM-22	M110 X 2.0	145.0	133.0	19.0	404
KM-23	M115 X 2.0	150.0	137.0	19.0	410
KM-24	M120 X 2.0	155.0	138.0	20.0	438
KM-25	M125 X 2.0	160.0	148.0	21.0	467
KM-26	M130 X 2.0	165.0	149.0	21.0	473
KM-27	M135 X 2.0	175.0	160.0	22.0	550
KM-28	M140 X 2.0	180.0	160.0	22.0	556

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Thread to Face Runout Specifications Available on Page X16

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

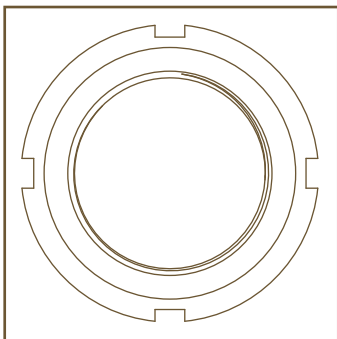
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D9

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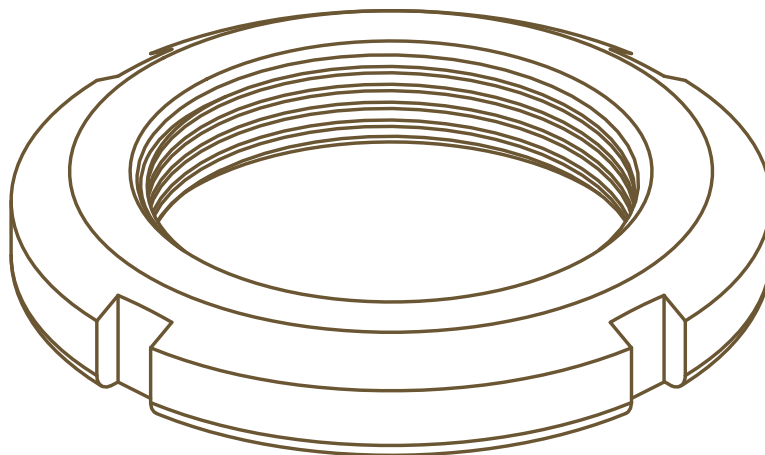


For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

Parts Number	Thread	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)
KM-29	M145 X 2.0	190.0	171.0	24.0	664
KM-30	M150 X 2.0	195.0	171.0	24.0	672
KM-31	M155 X 3.0	200.0	182.0	25.0	708
KM-32	M160 X 3.0	210.0	182.0	25.0	741
KM-33	M165 X 3.0	210.0	193.0	26.0	751
KM-34	M170 X 3.0	220.0	193.0	26.0	815
KM-36	M180 X 3.0	230.0	203.0	27.0	862
KM-38	M190 X 3.0	240.0	214.0	28.0	909
KM-40	M200 X 3.0	250.0	226.0	29.0	956
KM-44	TR220 X 4.0	280.0	250.0	32.0	1225
KM-48	TR240 X 4.0	300.0	270.0	34.0	1335
KM-52	TR260 X 4.0	330.0	300.0	36.0	1615
KM-56	TR280 X 4.0	350.0	320.0	38.0	1750
KM-60	TR300 X 4.0	380.0	340.0	40.0	2060
KM-64	TR320 X 5.0	400.0	360.0	42.0	2200
KM-68	TR340 X 5.0	440.0	400.0	55.0	3400
KM-72	TR360 X 5.0	460.0	420.0	58.0	3620

Thread to Face Runout Specifications Available on Page X16

Whittet-Higgins locknuts are manufactured in a multitude of sizes, materials and configurations to address our customers specific applications. If you cannot find the correct product, need further help selecting a product for a new application, or need one of the standard products modified for your specialized application, please contact one of our engineers at (401) 728-0700



**Benefits & Characteristics:**

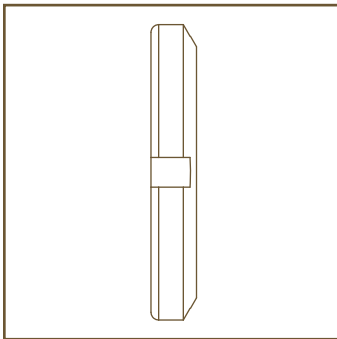
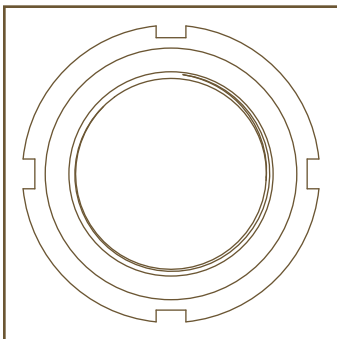
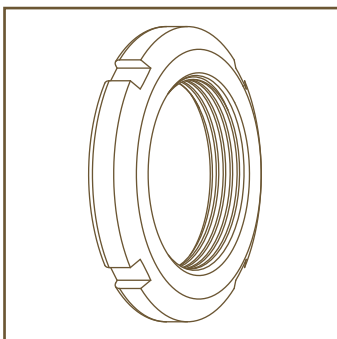
- Left hand thread prevents clockwise rotating assemblies from loosening
- Matched with MB series lockwashers to secure, lock and retain bearings and power transmission assemblies
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient metric bearing locknut line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets and exceeds specifications of ISO 2982-2:2013(E)
- Manufactured in USA and RoHS compliant

Applications:

- Clockwise rotating assemblies
- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F**Materials:**

Locknut - Carbon Steel



Part Number	Thread	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)
KML-00	M10 x 0.75	18.0	13.5	4.0	12
KML-01	M12 X 1.0	22.0	17.0	4.0	15
KML-02	M15 X 1.0	25.0	21.0	5.0	20
KML-03	M17 X 1.0	28.0	24.0	5.0	24
KML-04	M20 X 1.0	32.0	26.0	6.0	32
KML-044	M22 X 1.0	34.0	28.0	6.0	34
KML-05	M25 X 1.5	38.0	32.0	7.0	44
KML-056	M28 X 1.5	42.0	36.0	7.0	49
KML-06	M30 X 1.5	45.0	38.0	7.0	53
KML-064	M32 X 1.5	48.0	40.0	8.0	64
KML-07	M35 X 1.5	52.0	44.0	8.0	69
KML-08	M40 X 1.5	58.0	50.0	9.0	85
KML-09	M45 X 1.5	65.0	56.0	10.0	106
KML-10	M50 X 1.5	70.0	61.0	11.0	122
KML-11	M55 X 2.0	75.0	67.0	11.0	126
KML-12	M60 X 2.0	80.0	73.0	11.0	130
KML-13	M65 X 2.0	85.0	79.0	12.0	147
KML-14	M70 X 2.0	92.0	85.0	12.0	160
KML-15	M75 X 2.0	98.0	90.0	13.0	183
KML-16	M80 X 2.0	105.0	95.0	15.0	229
KML-17	M85 X 2.0	110.0	102.0	16.0	250
KML-18	M90 X 2.0	120.0	108.0	16.0	287
KML-19	M95 X 2.0	125.0	113.0	17.0	311
KML-20	M100 X 2.0	130.0	120.0	18.0	334
KML-21	M105 X 2.0	140.0	126.0	18.0	376
KML-22	M110 X 2.0	145.0	133.0	19.0	404
KML-23	M115 X 2.0	150.0	137.0	19.0	410
KML-24	M120 X 2.0	155.0	138.0	20.0	438
KML-25	M125 X 2.0	160.0	148.0	21.0	467
KML-26	M130 X 2.0	165.0	149.0	21.0	473
KML-27	M135 X 2.0	175.0	160.0	22.0	550
KML-28	M140 X 2.0	180.0	160.0	22.0	556

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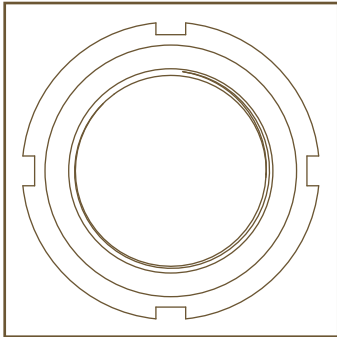
Thread to Face Runout Specifications Available on Page X16

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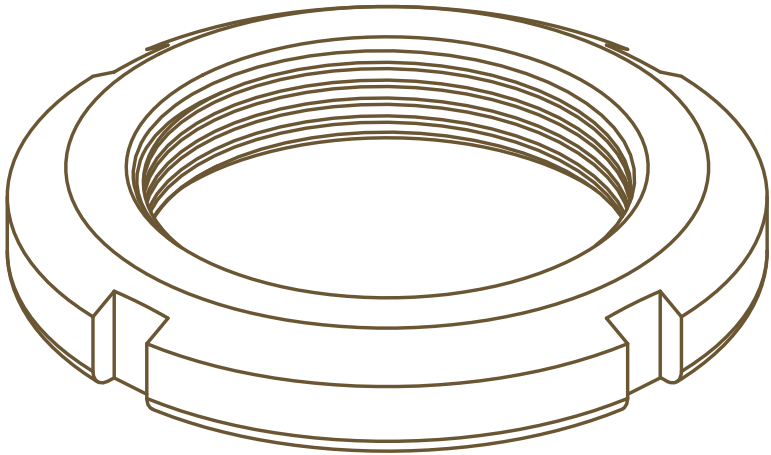


For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

Parts Number	Thread	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)
KML-29	M145 X 2.0	190.0	171.0	24.0	664
KML-30	M150 X 2.0	195.0	171.0	24.0	672
KML-31	M155 X 3.0	200.0	182.0	25.0	708
KML-32	M160 X 3.0	210.0	182.0	25.0	741
KML-33	M165 X 3.0	210.0	193.0	26.0	751
KML-34	M170 X 3.0	220.0	193.0	26.0	815
KML-36	M180 X 3.0	230.0	203.0	27.0	862
KML-38	M190 X 3.0	240.0	214.0	28.0	909
KML-40	M200 X 3.0	250.0	226.0	29.0	956

Thread to Face Runout Specifications Available on Page X16

Whittet-Higgins locknuts are manufactured in a multitude of sizes, materials and configurations to address our customers specific applications. If you cannot find the correct product, need further help selecting a product for a new application, or need one of the standard products modified for your specialized application, please contact one of our engineers at (401) 728-0700





Benefits & Characteristics:

- Hardened alloy for high axial loading capacity
- Matched with MBA heavy duty series lockwashers to secure, lock and retain bearings and power transmission assemblies
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient metric bearing locknut line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets and exceeds specifications of ISO 2982-2:2013(E)
- Manufactured in USA and RoHS compliant

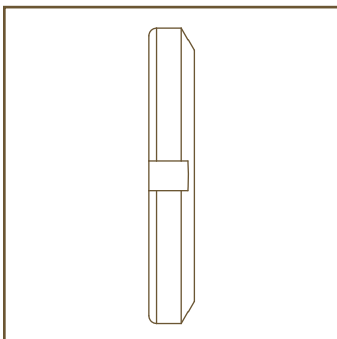
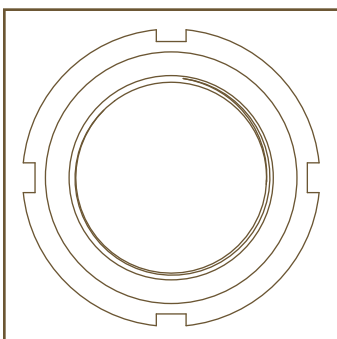
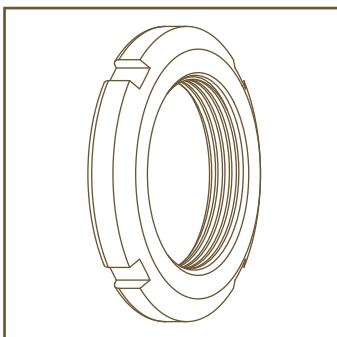
Applications:

- High axial load applications
- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Locknut - Hardened Alloy



Part Number	Thread	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)
KMM-00	M10 x 0.75	18.0	13.5	4.0	18
KMM-01	M12 X 1.0	22.0	17.0	4.0	23
KMM-02	M15 X 1.0	25.0	21.0	5.0	32
KMM-03	M17 X 1.0	28.0	24.0	5.0	36
KMM-04	M20 X 1.0	32.0	26.0	6.0	49
KMM-044	M22 X 1.0	34.0	28.0	6.0	51
KMM-05	M25 X 1.5	38.0	32.0	7.0	67
KMM-056	M28 X 1.5	42.0	36.0	7.0	73
KMM-06	M30 X 1.5	45.0	38.0	7.0	79
KMM-064	M32 X 1.5	48.0	40.0	8.0	96
KMM-07	M35 X 1.5	52.0	44.0	8.0	104
KMM-08	M40 X 1.5	58.0	50.0	9.0	128
KMM-09	M45 X 1.5	65.0	56.0	10.0	159
KMM-10	M50 X 1.5	70.0	61.0	11.0	183
KMM-11	M55 X 2.0	75.0	67.0	11.0	190
KMM-12	M60 X 2.0	80.0	73.0	11.0	196
KMM-13	M65 X 2.0	85.0	79.0	12.0	220
KMM-14	M70 X 2.0	92.0	85.0	12.0	241
KMM-15	M75 X 2.0	98.0	90.0	13.0	275
KMM-16	M80 X 2.0	105.0	95.0	15.0	344
KMM-17	M85 X 2.0	110.0	102.0	16.0	375
KMM-18	M90 X 2.0	120.0	108.0	16.0	432
KMM-19	M95 X 2.0	125.0	113.0	17.0	466
KMM-20	M100 X 2.0	130.0	120.0	18.0	502
KMM-21	M105 X 2.0	140.0	126.0	18.0	564
KMM-22	M110 X 2.0	145.0	133.0	19.0	607
KMM-23	M115 X 2.0	150.0	137.0	19.0	615
KMM-24	M120 X 2.0	155.0	138.0	20.0	658
KMM-25	M125 X 2.0	160.0	148.0	21.0	701
KMM-26	M130 X 2.0	165.0	149.0	21.0	709
KMM-27	M135 X 2.0	175.0	160.0	22.0	825
KMM-28	M140 X 2.0	180.0	160.0	22.0	834

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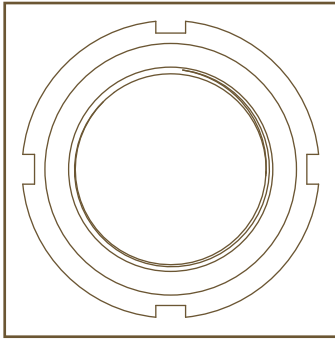
Thread to Face Runout Specifications Available on Page X16

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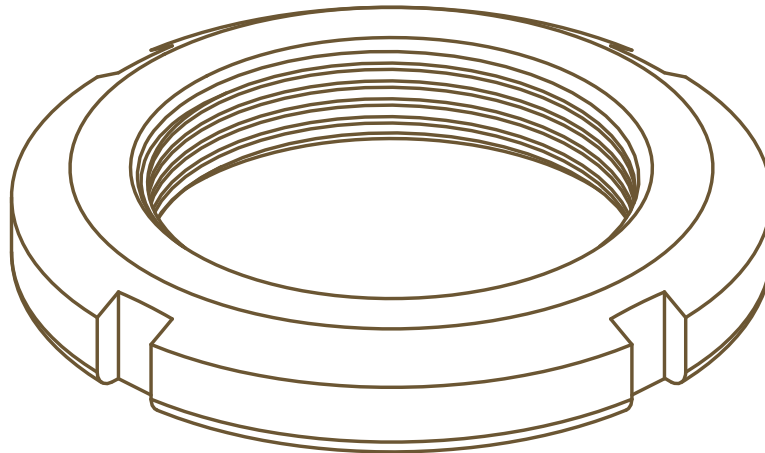
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For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

Parts Number	Thread	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)
KMM-29	M145 X 2.0	190.0	171.0	24.0	997
KMM-30	M150 X 2.0	195.0	171.0	24.0	1009
KMM-31	M155 X 3.0	200.0	182.0	25.0	1062
KMM-32	M160 X 3.0	210.0	182.0	25.0	1121
KMM-33	M165 X 3.0	210.0	193.0	26.0	1130
KMM-34	M170 X 3.0	220.0	193.0	26.0	1223
KMM-36	M180 X 3.0	230.0	203.0	27.0	1295
KMM-38	M190 X 3.0	240.0	214.0	28.0	1361
KMM-40	M200 X 3.0	250.0	226.0	29.0	1432

Thread to Face Runout Specifications Available on Page X16

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Benefits & Characteristics:

- Corrosion resistant stainless steel
- Matched with MBS series lockwashers to secure, lock and retain bearings and power transmission assemblies
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient metric bearing locknut line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets and exceeds specifications of ISO 2982-2:2013(E)
- Manufactured in USA and RoHS compliant

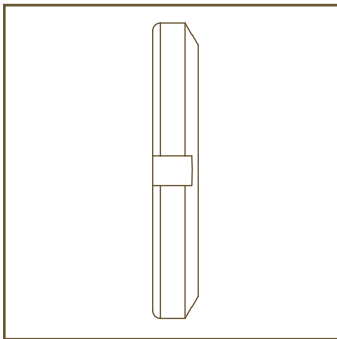
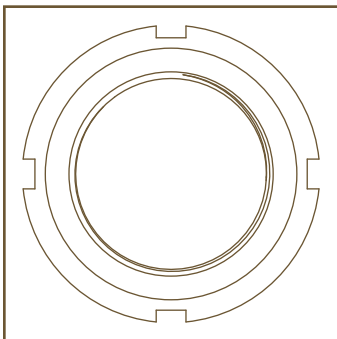
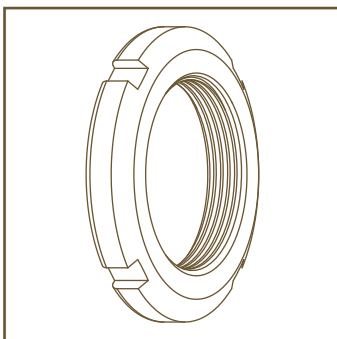
Applications:

- Corrosive environments
- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Locknut - Stainless Steel



Part Number	Thread	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)
KMS-00	M10 x 0.75	18.0	13.5	4.0	8
KMS-01	M12 X 1.0	22.0	17.0	4.0	15
KMS-02	M15 X 1.0	25.0	21.0	5.0	20
KMS-03	M17 X 1.0	28.0	24.0	5.0	24
KMS-04	M20 X 1.0	32.0	26.0	6.0	32
KMS-044	M22 X 1.0	34.0	28.0	6.0	34
KMS-05	M25 X 1.5	38.0	32.0	7.0	44
KMS-056	M28 X 1.5	42.0	36.0	7.0	49
KMS-06	M30 X 1.5	45.0	38.0	7.0	53
KMS-064	M32 X 1.5	48.0	40.0	8.0	64
KMS-07	M35 X 1.5	52.0	44.0	8.0	69
KMS-08	M40 X 1.5	58.0	50.0	9.0	85
KMS-09	M45 X 1.5	65.0	56.0	10.0	106
KMS-10	M50 X 1.5	70.0	61.0	11.0	122
KMS-11	M55 X 2.0	75.0	67.0	11.0	126
KMS-12	M60 X 2.0	80.0	73.0	11.0	130
KMS-13	M65 X 2.0	85.0	79.0	12.0	147
KMS-14	M70 X 2.0	92.0	85.0	12.0	160
KMS-15	M75 X 2.0	98.0	90.0	13.0	183
KMS-16	M80 X 2.0	105.0	95.0	15.0	229
KMS-17	M85 X 2.0	110.0	102.0	16.0	250
KMS-18	M90 X 2.0	120.0	108.0	16.0	287
KMS-19	M95 X 2.0	125.0	113.0	17.0	311
KMS-20	M100 X 2.0	130.0	120.0	18.0	334
KMS-21	M105 X 2.0	140.0	126.0	18.0	376
KMS-22	M110 X 2.0	145.0	133.0	19.0	404
KMS-23	M115 X 2.0	150.0	137.0	19.0	410
KMS-24	M120 X 2.0	155.0	138.0	20.0	438
KMS-25	M125 X 2.0	160.0	148.0	21.0	467
KMS-26	M130 X 2.0	165.0	149.0	21.0	473
KMS-27	M135 X 2.0	175.0	160.0	22.0	550
KMS-28	M140 X 2.0	180.0	160.0	22.0	556

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Thread to Face Runout Specifications Available on Page X16

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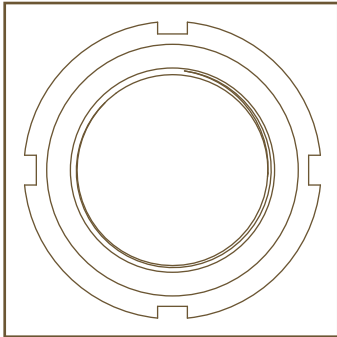
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D12

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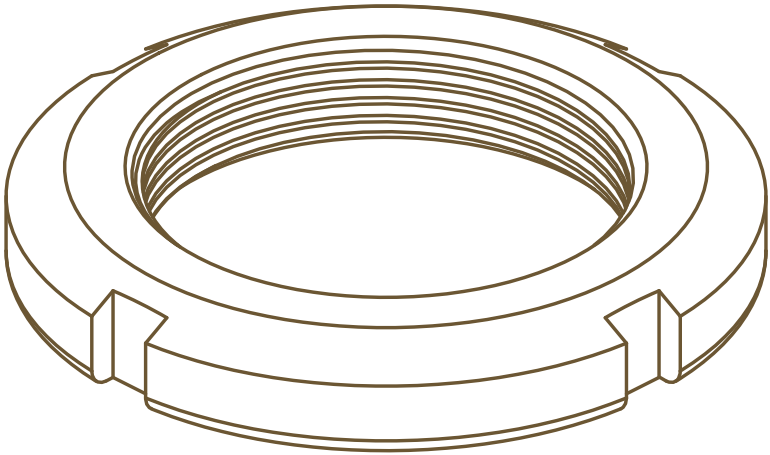


For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

Parts Number	Thread	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)
KMS-29	M145 X 2.0	190.0	171.0	24.0	664
KMS-30	M150 X 2.0	195.0	171.0	24.0	672
KMS-31	M155 X 3.0	200.0	182.0	25.0	708
KMS-32	M160 X 3.0	210.0	182.0	25.0	741
KMS-33	M165 X 3.0	210.0	193.0	26.0	751
KMS-34	M170 X 3.0	220.0	193.0	26.0	815
KMS-36	M180 X 3.0	230.0	203.0	27.0	862
KMS-38	M190 X 3.0	240.0	214.0	28.0	919
KMS-40	M200 X 3.0	250.0	226.0	29.0	956

Thread to Face Runout Specifications Available on Page X16

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Benefits & Characteristics:

- Matched with N / AN / NL series locknuts to secure, lock and retain bearings and power transmission assemblies
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient metric bearing lockwasher line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

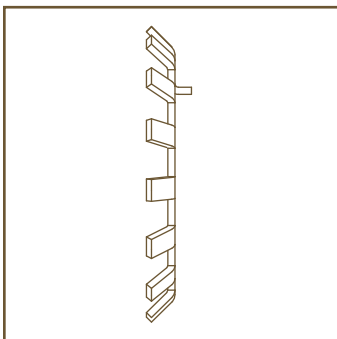
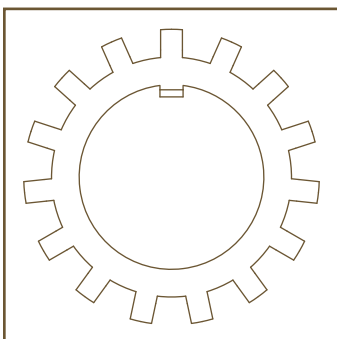
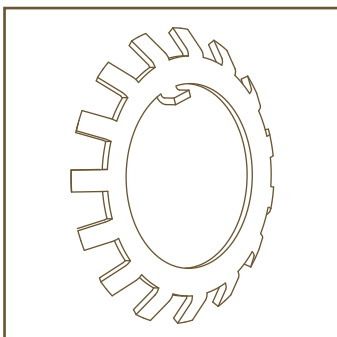
Applications:

- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Packaging equipment
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Lockwasher - Carbon Steel



Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)
W-00	0.406	0.875	0.640	0.046
W-01	0.484	1.016	0.734	0.046
W-02	0.601	1.156	0.827	0.046
W-03	0.679	1.328	0.953	0.046
W-04	0.801	1.531	1.140	0.046
W-05	0.989	1.719	1.296	0.054
W-06	1.193	1.922	1.515	0.054
W-07	1.396	2.250	1.827	0.054
W-08	1.583	2.469	2.030	0.063
W-09	1.792	2.734	2.311	0.063
W-10	1.992	2.922	2.468	0.063
W-11	2.182	3.109	2.686	0.068
W-12	2.400	3.344	2.874	0.068
W-13	2.588	3.578	3.093	0.068
W-14	2.791	3.828	3.343	0.068
W-15	2.973	4.109	3.593	0.077
W-16	3.177	4.375	3.874	0.077
W-17	3.395	4.625	4.061	0.077
W-18	3.582	4.938	4.326	0.100
W-19	3.800	5.219	4.607	0.100
W-20	3.988	5.500	4.858	0.100
W-21	4.192	5.703	5.045	0.100
W-22	4.395	6.063	5.326	0.132
W-24	4.801	6.469	5.733	0.132
W-26	5.191	7.031	6.233	0.132
W-28	5.582	7.438	6.576	0.132
W-30	5.983	8.063	7.123	0.164
W-32	6.389	8.438	7.498	0.164
W-34	6.764	9.063	8.091	0.164
W-36	7.171	9.438	8.435	0.164
W-38	7.577	9.875	8.841	0.164
W-40	7.982	10.313	9.216	0.164
W-44	8.701	11.438	9.930	0.164

Face Flatness Specifications Available on Page X17



Benefits & Characteristics:

- For high axial loading applications
- Matched with NH series locknuts to secure, lock and retain bearings and power transmission assemblies
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient metric bearing lockwasher line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Works with TAN series of locknuts
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

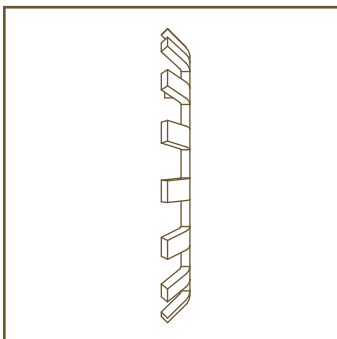
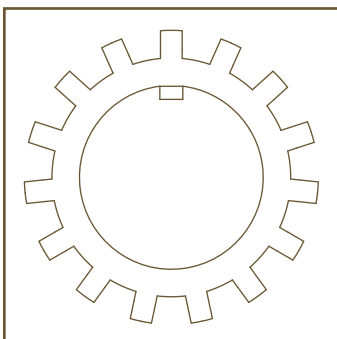
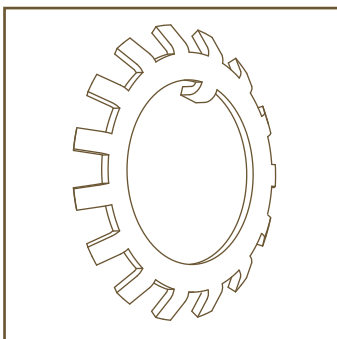
Applications:

- High axial load applications
- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Lockwasher - Carbon Steel



Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)
WH-00	0.406	0.891	0.640	0.046
WH-01	0.484	1.031	0.734	0.046
WH-02	0.601	1.156	0.827	0.063
WH-03	0.679	1.344	0.953	0.063
WH-04	0.801	1.563	1.140	0.063
WH-05	0.989	1.703	1.296	0.067
WH-06	1.193	1.953	1.515	0.067
WH-065	1.333	2.234	1.827	0.067
WH-07	1.396	2.250	1.827	0.067
WH-08	1.583	2.484	2.030	0.077
WH-09	1.792	2.719	2.311	0.077
WH-10	1.992	2.922	2.468	0.077
WH-11	2.182	3.109	2.686	0.077
WH-12	2.400	3.344	2.874	0.087
WH-13	2.588	3.578	3.093	0.087
WH-14	2.791	3.828	3.343	0.087
WH-15	2.973	4.109	3.593	0.101
WH-16	3.177	4.406	3.874	0.101
WH-17	3.395	4.656	4.061	0.101
WH-18	3.582	4.968	4.326	0.132
WH-19	3.800	5.250	4.607	0.132
WH-20	3.988	5.531	4.858	0.132
WH-21	4.192	5.734	5.045	0.132
WH-22	4.395	6.062	5.326	0.147
WH-24	4.801	6.531	5.733	0.173
WH-26	5.191	7.078	6.233	0.173
WH-28	5.582	7.484	6.576	0.173
WH-30	5.983	8.109	7.123	0.212
WH-32	6.389	8.484	7.498	0.212
WH-34	6.764	9.109	8.091	0.212
WH-36	7.171	9.484	8.435	0.212
WH-38	7.577	9.906	8.841	0.212
WH-40	7.982	10.406	9.216	0.212

Face Flatness Specifications Available on Page X17

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D14

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Benefits & Characteristics:

- Matched with NI series locknuts to secure, lock and retain bearings and power transmission assemblies
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient fractional bore bearing lockwasher line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Manufactured in USA and RoHS compliant

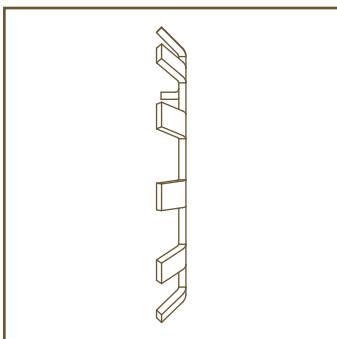
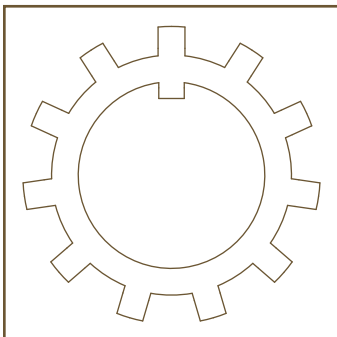
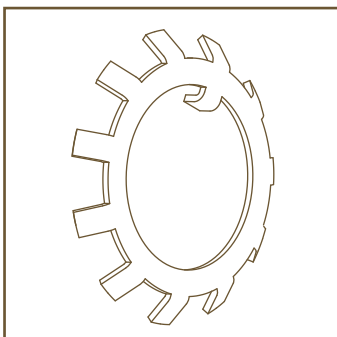
Applications:

- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Packaging equipment
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Lockwasher - Carbon Steel



Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)
WI-01	0.797	1.563	1.203	0.054
WI-02	0.922	1.688	1.328	0.054
WI-03	1.047	1.813	1.453	0.054
WI-04	1.172	2.000	1.578	0.054
WI-05	1.297	2.125	1.703	0.054
WI-06	1.422	2.375	1.953	0.054
WI-07	1.547	2.375	1.953	0.054
WI-08	1.672	2.625	2.203	0.068
WI-09	1.797	2.750	2.328	0.068
WI-10	1.922	2.875	2.453	0.068
WI-11	2.047	3.125	2.703	0.068
WI-12	2.297	3.438	2.890	0.068
WI-13	2.547	3.688	3.140	0.068
WI-14	2.797	3.938	3.390	0.068

Face Flatness Specifications Available on Page X17



Benefits & Characteristics:

- Corrosion resistant stainless steel
- Matched with NS series locknuts to secure, lock and retain bearings and power transmission assemblies
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient metric bearing lockwasher line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets and exceeds specifications of ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

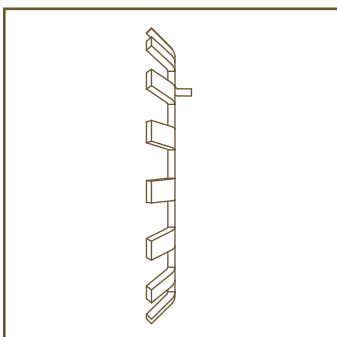
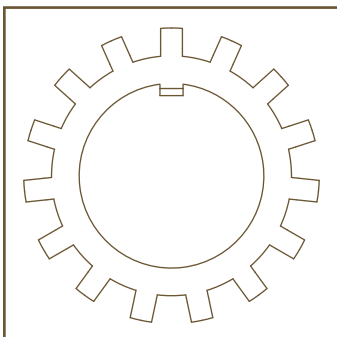
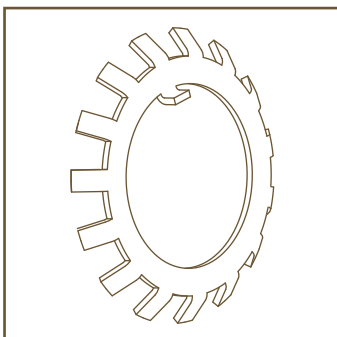
Applications:

- Corrosive environments
- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Lockwasher - Stainless Steel



Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)
WS-00	0.406	0.875	0.640	0.046
WS-01	0.484	1.016	0.734	0.046
WS-02	0.601	1.156	0.827	0.046
WS-03	0.679	1.328	0.953	0.046
WS-04	0.801	1.531	1.140	0.046
WS-05	0.989	1.719	1.296	0.054
WS-06	1.193	1.922	1.515	0.054
WS-07	1.396	2.250	1.827	0.054
WS-08	1.583	2.469	2.030	0.063
WS-09	1.792	2.734	2.311	0.063
WS-10	1.992	2.922	2.468	0.063
WS-11	2.182	3.109	2.686	0.068
WS-12	2.400	3.344	2.874	0.068
WS-13	2.588	3.578	3.093	0.068
WS-14	2.791	3.828	3.343	0.068
WS-15	2.973	4.109	3.593	0.077
WS-16	3.177	4.375	3.874	0.077
WS-17	3.395	4.625	4.061	0.077
WS-18	3.582	4.938	4.326	0.100
WS-19	3.800	5.219	4.607	0.100
WS-20	3.988	5.500	4.858	0.100
WS-21	4.192	5.703	5.045	0.100
WS-22	4.395	6.063	5.326	0.132
WS-24	4.801	6.469	5.733	0.132
WS-26	5.191	7.031	6.233	0.132
WS-28	5.582	7.438	6.576	0.132
WS-30	5.983	8.063	7.123	0.164
WS-32	6.389	8.438	7.498	0.164
WS-34	6.764	9.063	8.091	0.164
WS-36	7.171	9.438	8.435	0.164
WS-38	7.577	9.875	8.841	0.164
WS-40	7.982	10.313	9.216	0.164

Face Flatness Specifications Available on Page X17



Benefits & Characteristics:

- For lighter axial loading applications
- Matched with NT series locknuts to secure, lock and retain bearings and power transmission assemblies
- Smaller diameter and thickness for limited spaces
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient light duty bearing lockwasher line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets and exceeds specifications for ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

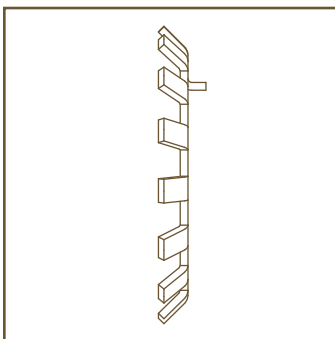
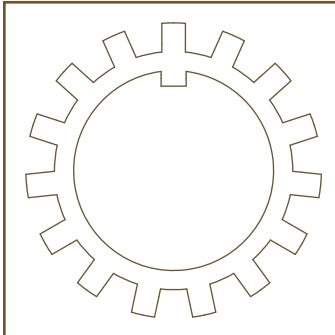
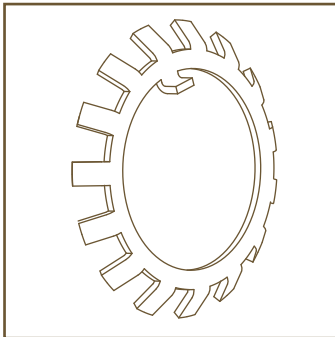
Applications:

- Limited space applications
- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Lockwasher - Carbon Steel



Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)
WT-00	0.406	0.828	0.551	0.044
WT-01	0.484	0.922	0.645	0.044
WT-02	0.601	1.094	0.770	0.044
WT-03	0.679	1.203	0.895	0.044
WT-04	0.801	1.375	1.020	0.044
WT-05	0.989	1.562	1.208	0.054
WT-06	1.193	1.859	1.458	0.054
WT-07	1.396	2.078	1.676	0.054
WT-08	1.583	2.250	1.864	0.068
WT-09	1.792	2.500	2.082	0.068
WT-10	1.992	2.688	2.270	0.068
WT-11	2.182	2.953	2.520	0.068
WT-12	2.400	3.188	2.708	0.068
WT-13	2.588	3.375	2.895	0.068
WT-14	2.791	3.594	3.114	0.068
WT-15	2.973	3.922	3.395	0.068
WT-16	3.177	4.141	3.614	0.068
WT-17	3.395	4.359	3.832	0.068
WT-18	3.582	4.547	4.020	0.068

Face Flatness Specifications Available on Page X17

LOCKWASHER - W-000 SERIES SMALL PROFILE

ANSI / ABMA 8.2-1999 SPECIFICATIONS

Benefits & Characteristics:

- For lighter axial loading applications
- Matched with N-000 series locknuts to secure, lock and retain bearings and power transmission assemblies
- Smaller diameter and thickness for limited spaces
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient light duty bearing lockwasher line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets and exceeds specifications for ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

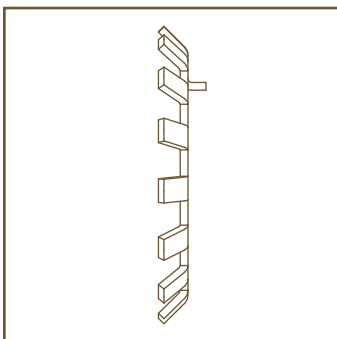
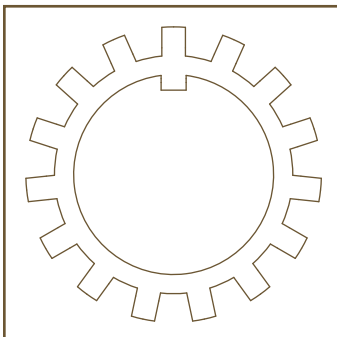
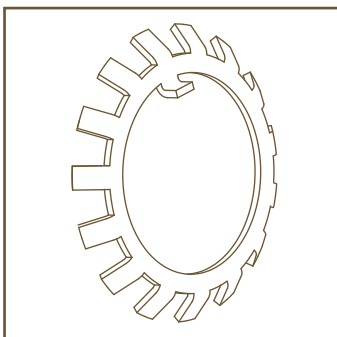
Applications:

- Limited space applications
- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Lockwasher - Carbon Steel



Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)
W-022	4.395	5.688	4.966	0.125
W-024	4.801	6.188	5.376	0.125
W-026	5.191	6.625	5.768	0.125
W-028	5.582	7.094	6.174	0.125
W-030	5.983	7.719	6.768	0.125
W-032	6.389	8.156	7.174	0.125
W-034	6.764	8.594	7.568	0.125
W-036	7.171	9.000	7.959	0.125
W-038	7.577	9.438	8.350	0.125
W-040	7.982	9.969	8.834	0.125
W-044	8.701	10.406	9.630	0.125

Face Flatness Specifications Available on Page X17

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D18

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Benefits & Characteristics:

- For lighter axial loading applications
- Matched with N-048 and larger series locknuts to secure, lock and retain bearings and power transmission assemblies
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient light duty bearing lockplate line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Shipped with required fasteners to secure to corresponding locknut
- Meets and exceeds specifications for ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS compliant

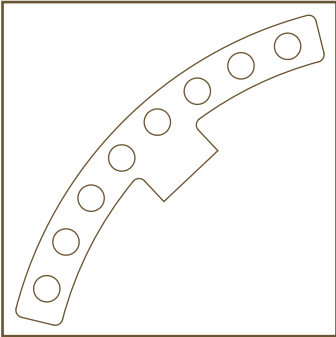
Applications:

- Limited space applications
- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Lockwasher - Carbon Steel



Part Number	Max Width (Inches)	Hex Head Screw	Locking Wire Diameter (Inches)	Locking Wire Length (Inches)
PP-48	0.143	5/8" Hex - 5/16-18	1/16	11
PP-52	0.143	5/8" Hex - 5/16-18	1/16	11
PP-56	0.143	5/8" Hex - 5/16-18	1/16	11
PP-60	0.143	5/8" Hex - 5/16-18	1/16	11
PP-64	0.143	5/8" Hex - 5/16-18	1/16	11
PP-68	0.143	5/8" Hex - 5/16-18	1/16	11
PP-72	0.143	5/8" Hex - 5/16-18	1/16	11
PP-76	0.143	5/8" Hex - 5/16-18	1/16	11
PP-80	0.143	5/8" Hex - 5/16-18	1/16	11
PP-84	0.143	5/8" Hex - 5/16-18	1/16	11



Benefits & Characteristics:

- Matched with KM / KML / KMM series lockwashers to secure, lock and retain bearings and power transmission assemblies
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient metric bearing lockwasher line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets and exceeds specifications of ISO 2982-2:2013(E)
- Manufactured in USA and RoHS compliant

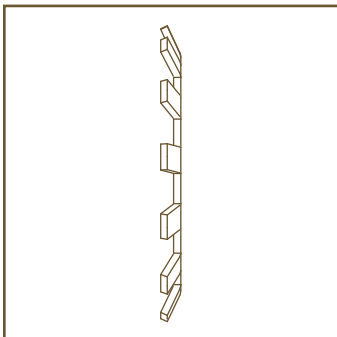
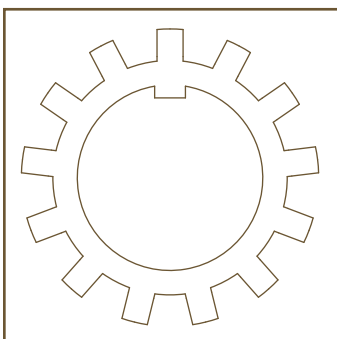
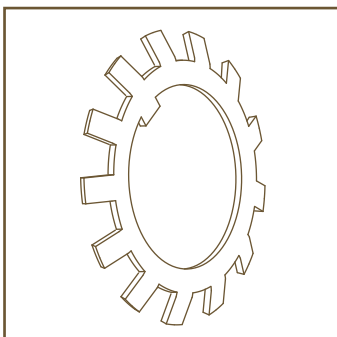
Applications:

- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Packaging equipment
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Lockwasher - Carbon Steel



Part Number	Bore (mm)	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)
MB-00	10.0	21.0	13.5	1.0
MB-01	12.0	25.0	17.0	1.0
MB-02	15.0	28.0	21.0	1.0
MB-03	17.0	32.0	24.0	1.0
MB-04	20.0	36.0	26.0	1.0
MB-044	22.0	38.0	28.0	1.0
MB-05	25.0	42.0	32.0	1.3
MB-056	28.0	46.0	36.0	1.3
MB-06	30.0	49.0	38.0	1.3
MB-064	32.0	52.0	40.0	1.3
MB-07	35.0	57.0	44.0	1.3
MB-08	40.0	62.0	50.0	1.3
MB-09	45.0	69.0	56.0	1.3
MB-10	50.0	74.0	61.0	1.3
MB-11	55.0	81.0	67.0	1.5
MB-12	60.0	86.0	73.0	1.5
MB-13	65.0	92.0	79.0	1.5
MB-14	70.0	98.0	85.0	1.5
MB-15	75.0	104.0	90.0	1.5
MB-16	80.0	112.0	95.0	1.8
MB-17	85.0	119.0	102.0	1.8
MB-18	90.0	126.0	108.0	1.8
MB-19	95.0	133.0	113.0	1.8
MB-20	100.0	142.0	120.0	1.8
MB-21	105.0	145.0	126.0	1.8
MB-22	110.0	154.0	133.0	1.8
MB-23	115.0	159.0	137.0	2.0
MB-24	120.0	164.0	138.0	2.0
MB-25	125.0	170.0	148.0	2.0
MB-26	130.0	175.0	149.0	2.0
MB-27	135.0	185.0	160.0	2.0
MB-28	140.0	192.0	160.0	2.0
MB-29	145.0	202.0	171.0	2.0
MB-30	150.0	205.0	171.0	2.0

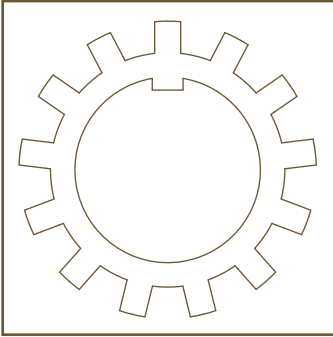
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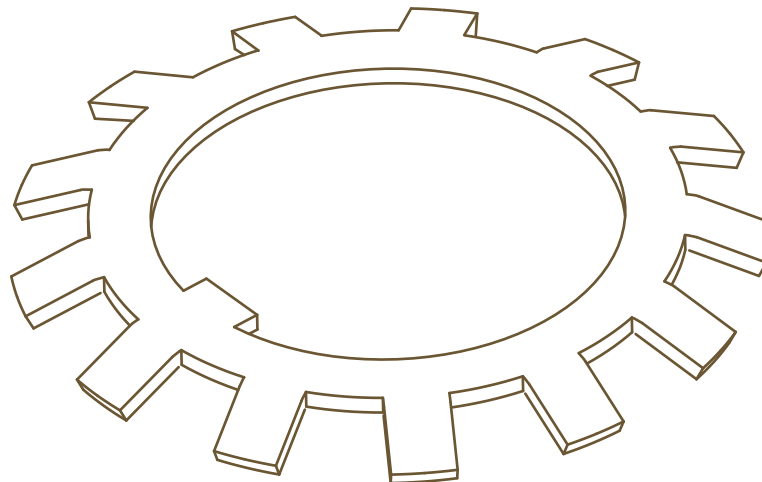
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Part Number	Bore (mm)	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)
MB-31	155.0	212.0	182.0	2.5
MB-32	160.0	217.0	182.0	2.5
MB-33	165.0	222.0	193.0	2.5
MB-34	170.0	232.0	193.0	2.5
MB-36	180.0	242.0	203.0	2.5
MB-38	190.0	252.0	214.0	2.5
MB-40	200.0	262.0	226.0	2.5

Face Flatness Specifications Available on Page X17

Whittet-Higgins lockwashers are manufactured in a multitude of sizes, materials and configurations to address our customers specific applications. If you cannot find the correct product, need further help selecting a product for a new application, or need one of the standard products modified for your specialized application, please contact one of our engineers at (401) 728-0700



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Benefits & Characteristics:

- Matched with KM / KML / KMM locknuts to secure, lock and retain bearings and power transmission assemblies
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient metric bearing lockwasher line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets and exceeds specifications of ISO 2982-2:2013(E)
- Manufactured in USA and RoHS compliant

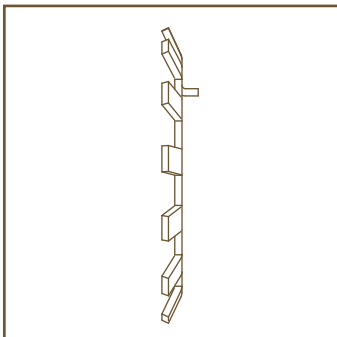
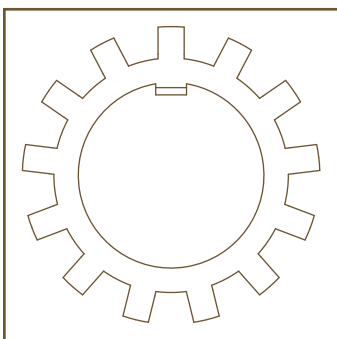
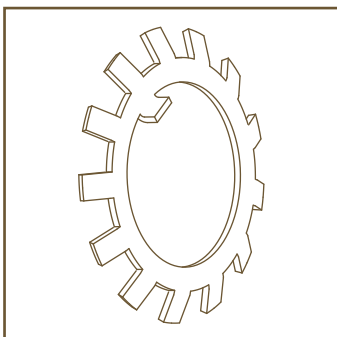
Applications:

- High axial load applications
- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Lockwasher - Carbon Steel

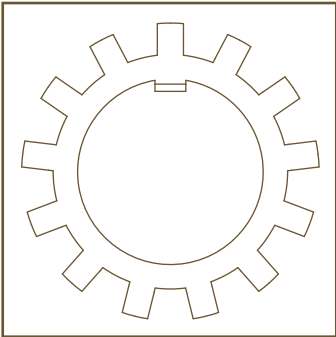


Part Number	Bore (mm)	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)
MBA-00	10.0	21.0	13.5	1.0
MBA-01	12.0	25.0	17.0	1.0
MBA-02	15.0	28.0	21.0	1.0
MBA-03	17.0	32.0	24.0	1.0
MBA-04	20.0	36.0	26.0	1.0
MBA-044	22.0	38.0	28.0	1.0
MBA-05	25.0	42.0	32.0	1.3
MBA-056	28.0	46.0	36.0	1.3
MBA-06	30.0	49.0	38.0	1.3
MBA-064	32.0	52.0	40.0	1.3
MBA-07	35.0	57.0	44.0	1.3
MBA-08	40.0	62.0	50.0	1.3
MBA-09	45.0	69.0	56.0	1.3
MBA-10	50.0	74.0	61.0	1.3
MBA-11	55.0	81.0	67.0	1.5
MBA-12	60.0	86.0	73.0	1.5
MBA-13	65.0	92.0	79.0	1.5
MBA-14	70.0	98.0	85.0	1.5
MBA-15	75.0	104.0	90.0	1.5
MBA-16	80.0	112.0	95.0	1.8
MBA-17	85.0	119.0	102.0	1.8
MBA-18	90.0	126.0	108.0	1.8
MBA-19	95.0	133.0	113.0	1.8
MBA-20	100.0	142.0	120.0	1.8
MBA-21	105.0	145.0	126.0	1.8
MBA-22	110.0	154.0	133.0	1.8
MBA-23	115.0	159.0	137.0	2.0
MBA-24	120.0	164.0	138.0	2.0
MBA-25	125.0	170.0	148.0	2.0
MBA-26	130.0	175.0	149.0	2.0
MBA-27	135.0	185.0	160.0	2.0
MBA-28	140.0	192.0	160.0	2.0
MBA-29	145.0	202.0	171.0	2.0
MBA-30	150.0	205.0	171.0	2.0

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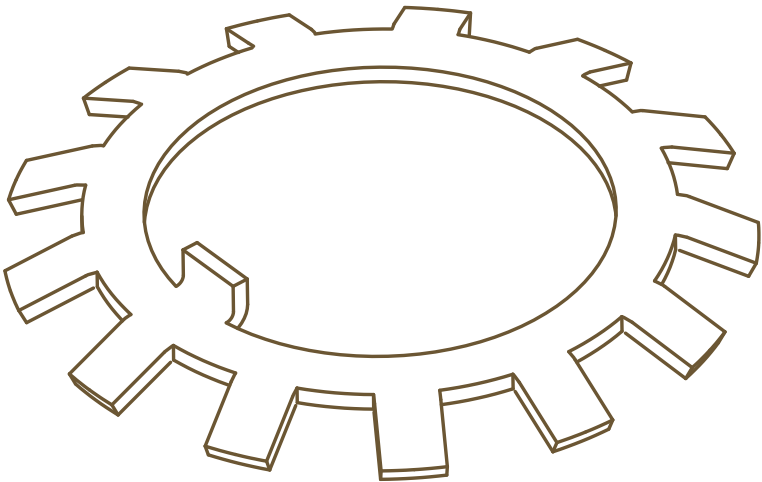


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Part Number	Bore (mm)	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)
MBA-31	155.0	212.0	182.0	2.5
MBA-32	160.0	217.0	182.0	2.5
MBA-33	165.0	222.0	193.0	2.5
MBA-34	170.0	232.0	193.0	2.5
MBA-36	180.0	242.0	203.0	2.5
MBA-38	190.0	252.0	214.0	2.5
MBA-40	200.0	262.0	226.0	2.5

Face Flatness Specifications Available on Page X17

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Benefits & Characteristics:

- Corrosion resistant stainless steel
- Matched with KMS series locknuts to secure, lock and retain bearings and power transmission assemblies
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient metric bearing lockwasher line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets and exceeds specifications of ISO 2982-2:2013(E)
- Manufactured in USA and RoHS compliant

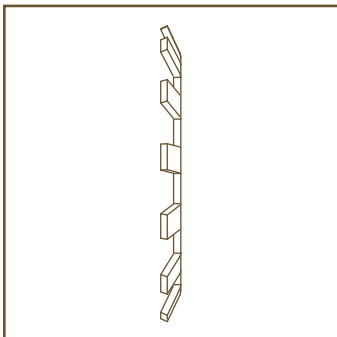
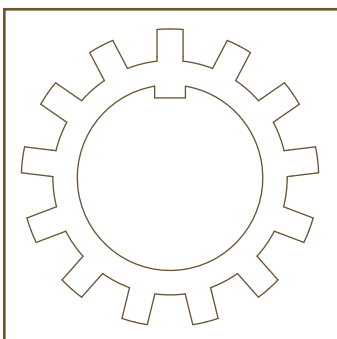
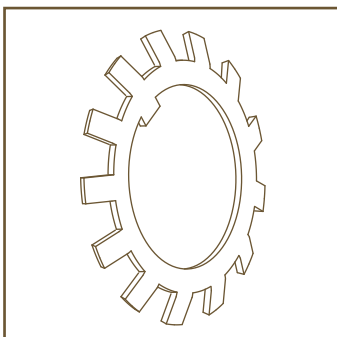
Applications:

- Corrosive environments
- Gear box assemblies
- Compressors
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Lockwasher - Stainless Steel

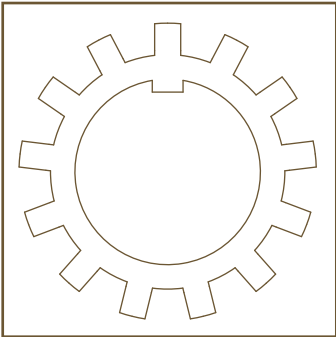


Part Number	Bore (mm)	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)
MBS-00	10.0	21.0	13.5	1.0
MBS-01	12.0	25.0	17.0	1.0
MBS-02	15.0	28.0	21.0	1.0
MBS-03	17.0	32.0	24.0	1.0
MBS-04	20.0	36.0	26.0	1.0
MBS-044	22.0	38.0	28.0	1.0
MBS-05	25.0	42.0	32.0	1.3
MBS-056	28.0	46.0	36.0	1.3
MBS-06	30.0	49.0	38.0	1.3
MBS-064	32.0	52.0	40.0	1.3
MBS-07	35.0	57.0	44.0	1.3
MBS-08	40.0	62.0	50.0	1.3
MBS-09	45.0	69.0	56.0	1.3
MBS-10	50.0	74.0	61.0	1.3
MBS-11	55.0	81.0	67.0	1.5
MBS-12	60.0	86.0	73.0	1.5
MBS-13	65.0	92.0	79.0	1.5
MBS-14	70.0	98.0	85.0	1.5
MBS-15	75.0	104.0	90.0	1.5
MBS-16	80.0	112.0	95.0	1.8
MBS-17	85.0	119.0	102.0	1.8
MBS-18	90.0	126.0	108.0	1.8
MBS-19	95.0	133.0	113.0	1.8
MBS-20	100.0	142.0	120.0	1.8
MBS-21	105.0	145.0	126.0	1.8
MBS-22	110.0	154.0	133.0	1.8
MBS-23	115.0	159.0	137.0	2.0
MBS-24	120.0	164.0	138.0	2.0
MBS-25	125.0	170.0	148.0	2.0
MBS-26	130.0	175.0	149.0	2.0
MBS-27	135.0	185.0	160.0	2.0
MBS-28	140.0	192.0	160.0	2.0
MBS-29	145.0	202.0	171.0	2.0
MBS-30	150.0	205.0	171.0	2.0

(Table Continued on Next Page)



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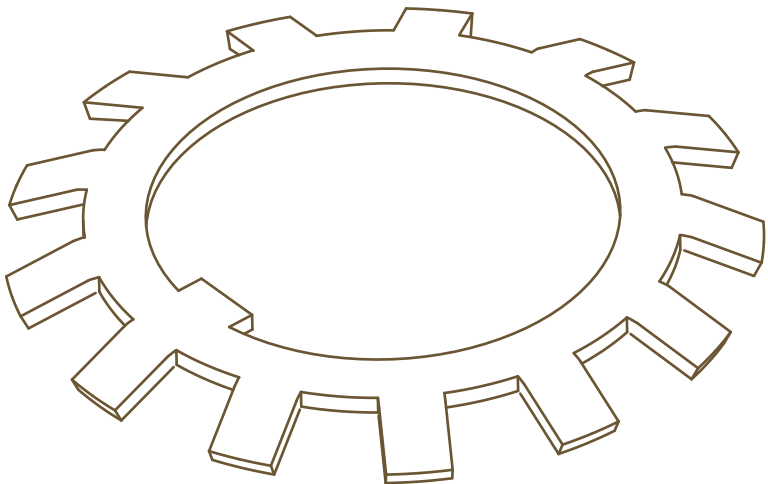


For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

Part Number	Bore (mm)	Max. Outside Diameter (mm)	Max. Face Diameter (mm)	Max. Width (mm)
MBS-31	155.0	212.0	182.0	2.5
MBS-32	160.0	217.0	182.0	2.5
MBS-33	165.0	222.0	193.0	2.5
MBS-34	170.0	232.0	193.0	2.5
MBS-36	180.0	242.0	203.0	2.5
MBS-38	190.0	252.0	214.0	2.5
MBS-40	200.0	262.0	226.0	2.5

Face Flatness Specifications Available on Page X17

Whittet-Higgins lockwashers are manufactured in a multitude of sizes, materials and configurations to address our customers specific applications. If you cannot find the correct product, need further help selecting a product for a new application, or need one of the standard products modified for your specialized application, please contact one of our engineers at (401) 728-0700



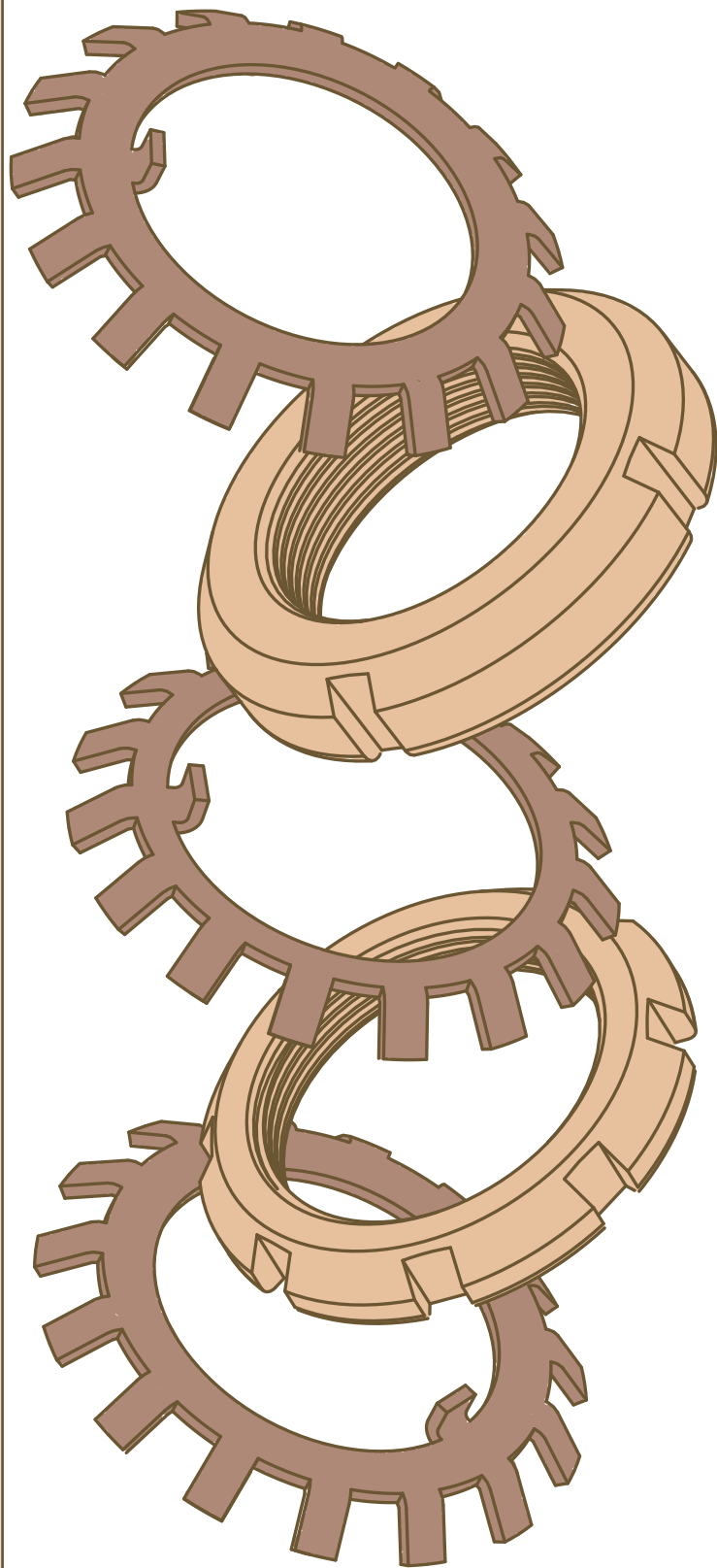
An Introduction to Military Locknuts & Lockwashers

In the late 18th century and throughout the 19th, the U.S. military were developmental sponsors, advocates and early adopters of standardization and interchangeability of products for military applications. By World War II, all divisions of the U.S. Military and their allies were standardizing and cataloguing the products that they required for development and maintenance of all equipment. The U.S. AN- (Army / Navy) catalogue system proved to be the first comprehensive standard.

Today, United States defense standards, often called a military standard, "MIL-STD", "MIL-SPEC", or informally "MILSPECS", are used to help achieve standardization objectives by the U.S. Department of Defense. These defense standards widely adopted and used by non-defense governmental organizations, technical organizations, and industries.

Defense standards evolved from the need to ensure proper performance, maintainability, and repairability and logistical usefulness of military equipment. The latter two goals favor certain general concepts, such as interchangeability, standardization, cataloguing, communications and training.

Whittet-Higgins manufactures eight (8) series of DFARS compliant lines of Military Specification locknuts and lockwashers for applications meeting the needs of the U.S. Department of Defense.





MILITARY SPECIFICATION LOCKNUT MS172236 THRU MS172259 SERIES

SAE Aerospace 2003-02 Specification

Benefits & Characteristics:

- For light axial loading precision applications
- Matched with MS172201 thru MS172223 series lockwashers to secure, lock and retain bearings and power transmission assemblies
- Smaller diameter and thickness for limited spaces
- Most precise bearing locknut for military applications available
- Tighter and more precise adjustment and setting of assemblies
- Prevents assembly loosening due to vibration, shock, and torque
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets original Department of Defense (DOD) Specifications
- Meets and exceeds SAE Aerospace 2003-02 Specification
- Manufactured in USA and RoHS compliant

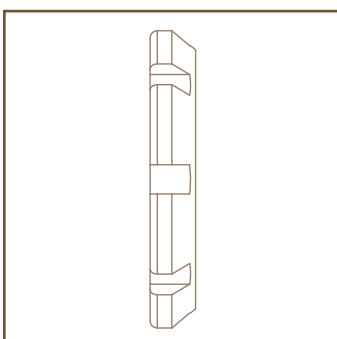
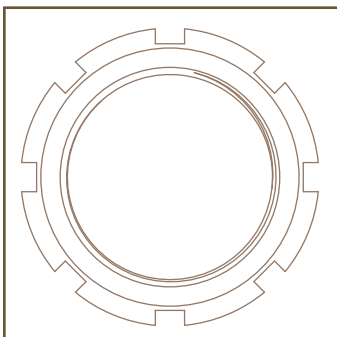
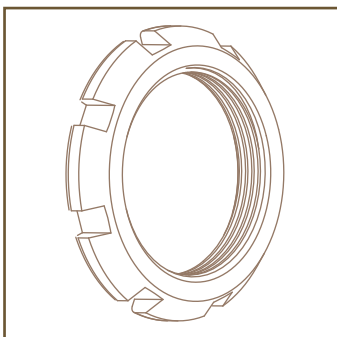
Applications:

- Limited space applications
- Light axial loads
- Aeronautical applications
- Military and Defense Applications
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Locknut - UNS G41400 to AMS 6382 (RC 26-32)



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)
MS172236	0.391-32	0.719	0.531	0.193	5200
MS172237	0.469-32	0.812	0.625	0.193	5900
MS172238	0.586-32	0.938	0.750	0.229	7800
MS172239	0.664-32	1.062	0.875	0.229	8850
MS172241	0.969-32	1.375	1.188	0.260	12200
MS172242	1.173-18	1.688	1.438	0.260	17050
MS172243	1.376-18	1.906	1.656	0.291	18500
MS172244	1.563-18	2.094	1.844	0.291	19450
MS172245	1.767-18	2.312	2.062	0.291	22900
MS172246	1.967-18	2.500	2.250	0.322	23350
MS172247	2.157-18	2.750	2.500	0.322	25850
MS172248	2.360-18	2.938	2.688	0.322	28750
MS172249	2.548-18	3.125	2.875	0.354	29350
MS172250	2.751-18	3.344	3.094	0.354	30550
MS172251	2.933-12	3.688	3.375	0.354	40450
MS172252	3.137-12	3.906	3.594	0.385	41800
MS172253	3.340-12	4.125	3.812	0.385	43150
MS172254	3.527-12	4.312	4.000	0.385	43800
MS172255	3.730-12	4.531	4.219	0.416	48800
MS172256	3.918-12	4.719	4.406	0.416	49400
MS172257	4.122-12	4.906	4.594	0.416	49200
MS172258	4.325-12	5.125	4.812	0.416	50550
MS172259	0.781-32	1.188	1.000	0.260	11050

Thread to Face Runout Specifications Available on Page X16

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

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at www.whittet-higgins.com

E1

Engineering & Sales Support: (401) 728-0700



MILITARY SPECIFICATION LOCKNUT MS-19068-XX1 SERIES

MIL-N-21337 Specification

Benefits & Characteristics:

- Matched with MS19070-001 thru MS19070-401 series lockwashers to secure, lock and retain bearings and power transmission assemblies
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient military grade locknut line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets original Department of Defense (DOD) Specifications
- Magnetic Particle Tested in accordance to MIL-I-6868
- Manufactured in USA and RoHS compliant

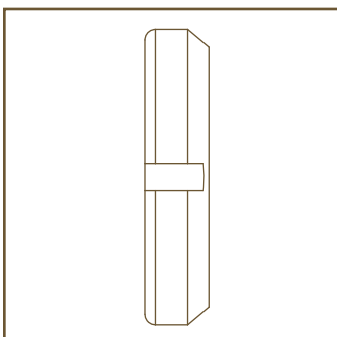
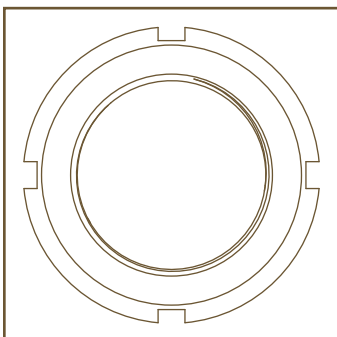
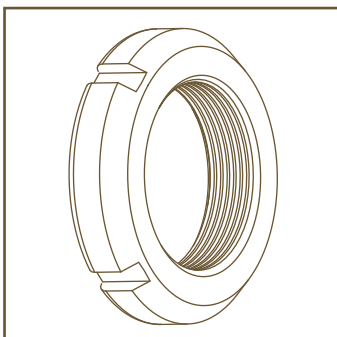
Applications:

- Gear box assemblies
- Aeronautical applications
- Military and Defense Applications
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Locknut - Carbon Steel



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)
MS19068-001	0.391-32	0.750	0.625	0.229	4100
MS19068-011	0.469-32	0.875	0.719	0.323	6900
MS19068-021	0.586-32	1.000	0.813	0.323	8100
MS19068-031	0.664-32	1.125	0.938	0.354	9900
MS19068-041	0.781-32	1.375	1.125	0.385	13200
MS19068-051	0.969-32	1.563	1.281	0.416	16200
MS19068-061	1.173-18	1.750	1.500	0.416	17500
MS19068-071	1.376-18	2.063	1.813	0.448	22500
MS19068-081	1.563-18	2.250	2.000	0.448	23700
MS19068-091	1.767-18	2.531	2.281	0.448	26500
MS19068-101	1.967-18	2.688	2.438	0.510	30500
MS19068-111	2.157-18	2.969	2.656	0.510	34100
MS19068-121	2.360-18	3.156	2.844	0.541	37000
MS19068-131	2.548-18	3.375	3.063	0.573	41300
MS19068-141	2.751-18	3.625	3.313	0.573	44000
MS19068-151	2.933-12	3.875	3.563	0.604	49800
MS19068-161	3.137-12	4.156	3.844	0.604	53700
MS19068-171	3.340-12	4.406	4.031	0.635	59400
MS19068-181	3.527-12	4.656	4.281	0.698	69200
MS19068-191	3.730-12	4.938	4.563	0.729	77100
MS19068-201	3.918-12	5.188	4.813	0.760	84200
MS19068-211	4.122-12	5.438	5.000	0.760	87800
MS19068-221	4.325-12	5.719	5.281	0.791	96500
MS19068-241	4.716-12	6.125	5.688	0.823	104200
MS19068-261	5.106-12	6.750	6.188	0.885	127600
MS19068-281	5.497-12	7.094	6.531	0.948	137600
MS19068-301	5.888-12	7.688	7.063	0.979	157500
MS19068-321	6.284-8	8.063	7.438	1.041	169900
MS19068-341	6.659-8	8.656	8.031	1.073	193100
MS19068-361	7.066-8	9.063	8.375	1.104	202600
MS19068-381	7.472-8	9.469	8.781	1.135	212000
MS19068-401	7.847-8	9.844	9.156	1.198	227200

Thread to Face Runout Specifications Available on Page X16

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

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E2

Engineering & Sales Support: (401) 728-0700



MILITARY SPECIFICATION LOCKNUT MS-19068-XX2 SERIES

MIL-N-21337 Specification

Benefits & Characteristics:

- Matched with MS19070-002 thru MS19070-402 series lockwashers to secure, lock and retain bearings and power transmission assemblies
- Zinc plated in accordance with QQ-Z-325 for corrosion resistance
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient military grade locknut line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets original Department of Defense (DOD) Specifications
- Magnetic Particle Tested in accordance to MIL-I-6868
- Manufactured in USA and RoHS compliant

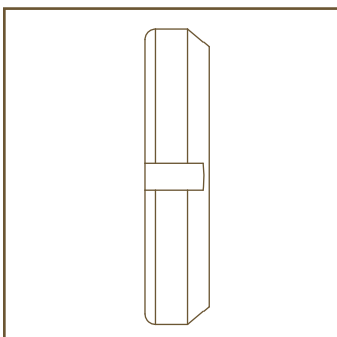
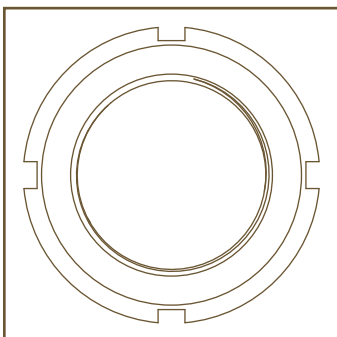
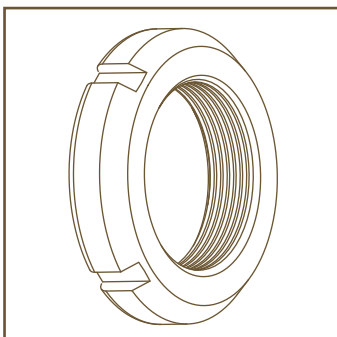
Applications:

- Gear box assemblies
- Aeronautical applications
- Military and Defense Applications
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Locknut - Carbon Steel



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)
MS19068-002	0.391-32	0.750	0.625	0.229	4100
MS19068-012	0.469-32	0.875	0.719	0.323	6900
MS19068-022	0.586-32	1.000	0.813	0.323	8100
MS19068-032	0.664-32	1.125	0.938	0.354	9900
MS19068-042	0.781-32	1.375	1.125	0.385	13200
MS19068-052	0.969-32	1.563	1.281	0.416	16200
MS19068-062	1.173-18	1.750	1.500	0.416	17500
MS19068-072	1.376-18	2.063	1.813	0.448	22500
MS19068-082	1.563-18	2.250	2.000	0.448	23700
MS19068-092	1.767-18	2.531	2.281	0.448	26500
MS19068-102	1.967-18	2.688	2.438	0.510	30500
MS19068-112	2.157-18	2.969	2.656	0.510	34100
MS19068-122	2.360-18	3.156	2.844	0.541	37000
MS19068-132	2.548-18	3.375	3.063	0.573	41300
MS19068-142	2.751-18	3.625	3.313	0.573	44000
MS19068-152	2.933-12	3.875	3.563	0.604	49800
MS19068-162	3.137-12	4.156	3.844	0.604	53700
MS19068-172	3.340-12	4.406	4.031	0.635	59400
MS19068-182	3.527-12	4.656	4.281	0.698	69200
MS19068-192	3.730-12	4.938	4.563	0.729	77100
MS19068-202	3.918-12	5.188	4.813	0.760	84200
MS19068-212	4.122-12	5.438	5.000	0.760	87800
MS19068-222	4.325-12	5.719	5.281	0.791	96500
MS19068-242	4.716-12	6.125	5.688	0.823	104200
MS19068-262	5.106-12	6.750	6.188	0.885	127600
MS19068-282	5.497-12	7.094	6.531	0.948	137600
MS19068-302	5.888-12	7.688	7.063	0.979	157500
MS19068-322	6.284-8	8.063	7.438	1.041	169900
MS19068-342	6.659-8	8.656	8.031	1.073	193100
MS19068-362	7.066-8	9.063	8.375	1.104	202600
MS19068-382	7.472-8	9.469	8.781	1.135	212000
MS19068-402	7.847-8	9.844	9.156	1.198	227200

Thread to Face Runout: Sizes 00 through 20 - 0.0004" / Sizes 20 through 40 - 0.002"

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

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E3

Engineering & Sales Support: (401) 728-0700



MILITARY SPECIFICATION LOCKNUT MS-19068-XX3 SERIES

MIL-N-21337 Specification

Benefits & Characteristics:

- Matched with MS19070-003 thru MS19070-403 series lockwashers to secure, lock and retain bearings and power transmission assemblies
- Stainless steel passivated per specification
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient military grade locknut line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets original Department of Defense (DOD) Specifications
- Liquid Penetrant Tested in accordance to ASTM-E-1417
- Manufactured in USA and RoHS compliant

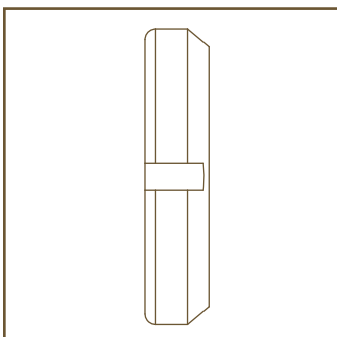
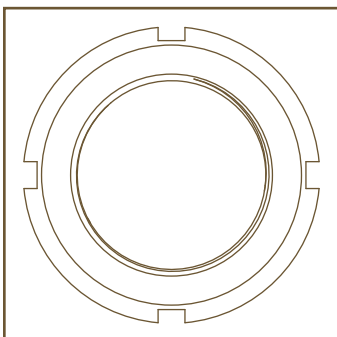
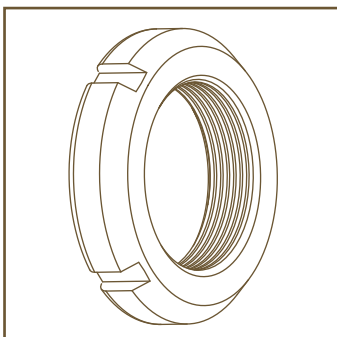
Applications:

- Corrosive environments
- Aeronautical applications
- Military and Defense Applications
- Gear box assemblies
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Locknut - Carbon Steel



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)
MS19068-003	0.391-32	0.750	0.625	0.229	4100
MS19068-013	0.469-32	0.875	0.719	0.323	6900
MS19068-023	0.586-32	1.000	0.813	0.323	8100
MS19068-033	0.664-32	1.125	0.938	0.354	9900
MS19068-043	0.781-32	1.375	1.125	0.385	13200
MS19068-053	0.969-32	1.563	1.281	0.416	16200
MS19068-063	1.173-18	1.750	1.500	0.416	17500
MS19068-073	1.376-18	2.063	1.813	0.448	22500
MS19068-083	1.563-18	2.250	2.000	0.448	23700
MS19068-093	1.767-18	2.531	2.281	0.448	26500
MS19068-103	1.967-18	2.688	2.438	0.510	30500
MS19068-113	2.157-18	2.969	2.656	0.510	34100
MS19068-123	2.360-18	3.156	2.844	0.541	37000
MS19068-133	2.548-18	3.375	3.063	0.573	41300
MS19068-143	2.751-18	3.625	3.313	0.573	44000
MS19068-153	2.933-12	3.875	3.563	0.604	49800
MS19068-163	3.137-12	4.156	3.844	0.604	53700
MS19068-173	3.340-12	4.406	4.031	0.635	59400
MS19068-183	3.527-12	4.656	4.281	0.698	69200
MS19068-193	3.730-12	4.938	4.563	0.729	77100
MS19068-203	3.918-12	5.188	4.813	0.760	84200
MS19068-213	4.122-12	5.438	5.000	0.760	87800
MS19068-223	4.325-12	5.719	5.281	0.791	96500
MS19068-243	4.716-12	6.125	5.688	0.823	104200
MS19068-263	5.106-12	6.750	6.188	0.885	127600
MS19068-283	5.497-12	7.094	6.531	0.948	137600
MS19068-303	5.888-12	7.688	7.063	0.979	157500
MS19068-323	6.284-8	8.063	7.438	1.041	169900
MS19068-343	6.659-8	8.656	8.031	1.073	193100
MS19068-363	7.066-8	9.063	8.375	1.104	202600
MS19068-383	7.472-8	9.469	8.781	1.135	212000
MS19068-403	7.847-8	9.844	9.156	1.198	227200

Thread to Face Runout Specifications Available on Page X16

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

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E4

Engineering & Sales Support: (401) 728-0700



MILITARY SPECIFICATION LOCKWASHER MS172201 THRU MS17223 SERIES

SAE Aerospace 2003-02 Specification

Benefits & Characteristics:

- For light axial loading applications
- Matched with MS172236 thru MS172259 series locknuts to secure, lock and retain bearings and power transmission assemblies
- Smaller diameter and thickness for limited spaces
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- No special tools required for installation
- Manganese Phosphate coated per AMS 2481
- Meets original Department of Defense (DOD) specifications
- Meets and exceeds SAE Aerospace 2003-02 specification
- Manufactured in USA and RoHS compliant

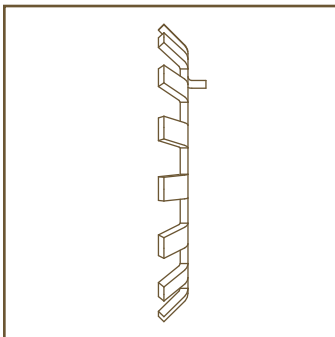
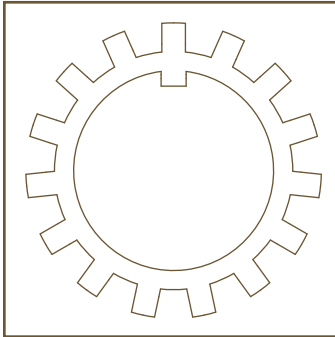
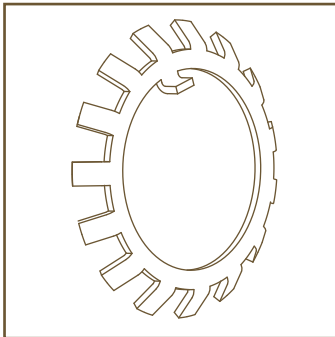
Applications:

- Limited space applications
- Light axial loads
- Aeronautical applications
- Military and Defense applications
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Lockwasher - UNS G41300 to AMS 6350



Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)
MS172201	0.406	0.828	0.551	0.044
MS172202	0.484	0.922	0.645	0.044
MS172203	0.601	1.094	0.770	0.044
MS172204	0.679	1.203	0.895	0.044
MS172206	0.989	1.562	1.208	0.054
MS172207	1.193	1.859	1.458	0.054
MS172208	1.396	2.078	1.676	0.054
MS172209	1.583	2.250	1.864	0.068
MS172210	1.792	2.500	2.082	0.068
MS172211	1.992	2.688	2.270	0.068
MS172212	2.182	2.953	2.520	0.068
MS172213	2.400	3.188	2.708	0.068
MS172214	2.588	3.375	2.895	0.068
MS172215	2.791	3.594	3.114	0.068
MS172216	2.973	3.922	3.395	0.068
MS172217	3.177	4.141	3.614	0.068
MS172218	3.395	4.359	3.832	0.068
MS172219	3.582	4.547	4.020	0.068
MS172220	3.800	4.812	4.239	0.068
MS172221	3.988	5.000	4.426	0.068
MS172222	4.192	5.188	4.614	0.068
MS172223	4.395	5.406	4.832	0.068
MS172224	0.801	1.375	1.020	0.044

Face Flatness Specifications Available on Page X17

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E5

Engineering & Sales Support: (401) 728-0700



MILITARY SPECIFICATION LOCKWASHER MS-19070-XX1 SERIES

MIL-DTL-21338 Specification

Benefits & Characteristics:

- Matched with MS19068-001 thru MS19068-401 series locknuts to secure, lock and retain bearings and power transmission assemblies
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient military grade lockwasher line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets original Department of Defense (DOD) specifications
- Manufactured in USA and RoHS compliant

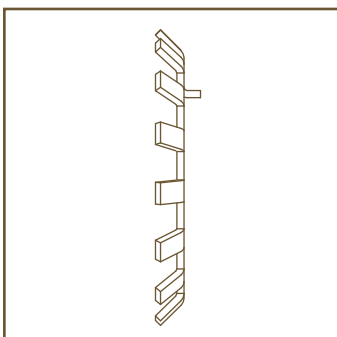
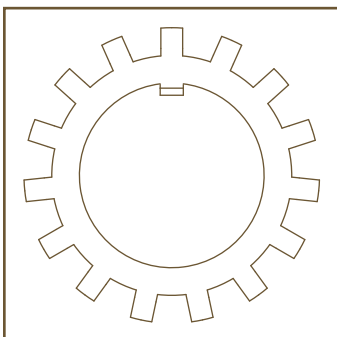
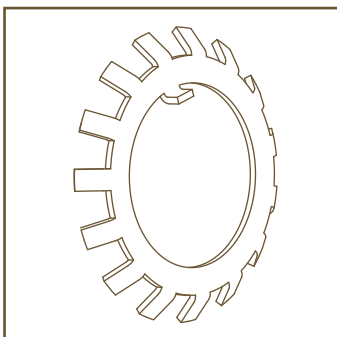
Applications:

- Gear box assemblies
- Aeronautical applications
- Military and Defense Applications
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Lockwasher - Carbon Steel



Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)
MS19070-001	0.406	0.875	0.640	0.046
MS19070-011	0.484	1.016	0.734	0.046
MS19070-021	0.601	1.156	0.827	0.046
MS19070-031	0.679	1.328	0.953	0.046
MS19070-041	0.801	1.531	1.140	0.046
MS19070-051	0.989	1.719	1.296	0.540
MS19070-061	1.193	1.922	1.515	0.540
MS19070-071	1.396	2.250	1.827	0.540
MS19070-081	1.583	2.469	2.030	0.063
MS19070-091	1.792	2.734	2.311	0.063
MS19070-101	1.992	2.922	2.468	0.063
MS19070-111	2.182	3.109	2.686	0.068
MS19070-121	2.400	3.344	2.874	0.068
MS19070-131	2.588	3.578	3.093	0.068
MS19070-141	2.791	3.828	3.343	0.068
MS19070-151	2.973	4.109	3.593	0.077
MS19070-161	3.177	4.375	3.874	0.077
MS19070-171	3.395	4.625	4.061	0.077
MS19070-181	3.582	4.938	4.326	0.100
MS19070-191	3.800	5.219	4.607	0.100
MS19070-201	3.988	5.500	4.858	0.100
MS19070-211	4.192	5.703	5.045	0.100
MS19070-221	4.395	6.063	5.326	0.132
MS19070-241	4.801	6.469	5.733	0.132
MS19070-261	5.191	7.031	6.233	0.132
MS19070-281	5.582	7.438	6.576	0.132
MS19070-301	5.983	8.063	7.123	0.164
MS19070-321	6.389	8.438	7.498	0.164
MS19070-341	6.764	9.063	8.091	0.164
MS19070-361	7.171	9.438	8.435	0.164
MS19070-381	7.577	9.875	8.841	0.164
MS19070-401	7.982	10.313	9.216	0.164

Face Flatness Specifications Available on Page X17

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E6

Engineering & Sales Support: (401) 728-0700



MILITARY SPECIFICATION LOCKWASHER MS-19070-XX2 SERIES

MIL-DTL-21338 Specification

Benefits & Characteristics:

- Matched with MS19068-002 thru MS19068-402 series locknuts to secure, lock and retain bearings and power transmission assemblies
- Zinc plated in accordance with QQ-Z-325 for corrosion resistance
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient plated military grade lockwasher line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets original Department of Defense (DOD) specifications
- Manufactured in USA and RoHS compliant

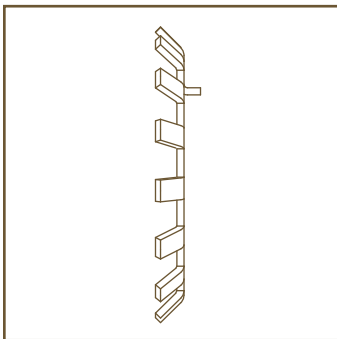
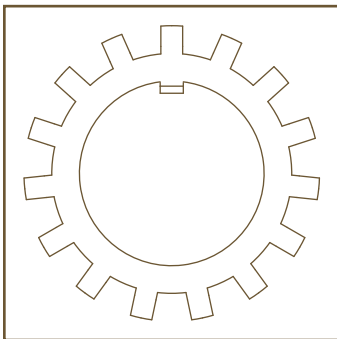
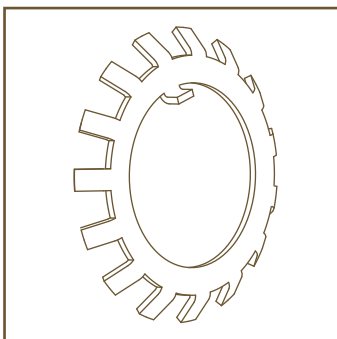
Applications:

- Gear box assemblies
- Aeronautical applications
- Military and Defense Applications
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Lockwasher - Carbon Steel



Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)
MS19070-002	0.406	0.875	0.640	0.046
MS19070-012	0.484	1.016	0.734	0.046
MS19070-022	0.601	1.156	0.827	0.046
MS19070-032	0.679	1.328	0.953	0.046
MS19070-042	0.801	1.531	1.140	0.046
MS19070-052	0.989	1.719	1.296	0.540
MS19070-062	1.193	1.922	1.515	0.540
MS19070-072	1.396	2.250	1.827	0.540
MS19070-082	1.583	2.469	2.030	0.063
MS19070-092	1.792	2.734	2.311	0.063
MS19070-102	1.992	2.922	2.468	0.063
MS19070-112	2.182	3.109	2.686	0.068
MS19070-122	2.400	3.344	2.874	0.068
MS19070-132	2.588	3.578	3.093	0.068
MS19070-142	2.791	3.828	3.343	0.068
MS19070-152	2.973	4.109	3.593	0.077
MS19070-162	3.177	4.375	3.874	0.077
MS19070-172	3.395	4.625	4.061	0.077
MS19070-182	3.582	4.938	4.326	0.100
MS19070-192	3.800	5.219	4.607	0.100
MS19070-202	3.988	5.500	4.858	0.100
MS19070-212	4.192	5.703	5.045	0.100
MS19070-222	4.395	6.063	5.326	0.132
MS19070-242	4.801	6.469	5.733	0.132
MS19070-262	5.191	7.031	6.233	0.132
MS19070-282	5.582	7.438	6.576	0.132
MS19070-302	5.983	8.063	7.123	0.164
MS19070-322	6.389	8.438	7.498	0.164
MS19070-342	6.764	9.063	8.091	0.164
MS19070-362	7.171	9.438	8.435	0.164
MS19070-382	7.577	9.875	8.841	0.164
MS19070-402	7.982	10.313	9.216	0.164

Face Flatness Specifications Available on Page X17

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E7

Engineering & Sales Support: (401) 728-0700



MILITARY SPECIFICATION LOCKWASHER MS-19070-XX3 SERIES

MIL-DTL-21338 Specification

Benefits & Characteristics:

- Matched with MS19068-003 thru MS19068-403 series locknuts to secure, lock and retain bearings and power transmission assemblies
- Stainless steel for superior corrosion resistance
- Provides accurate angular positioning with numerous locking positions
- Prevents assembly loosening due to vibration, shock, and torque
- Most cost efficient stainless military grade lockwasher line available
- No special tools required for installation
- Effective on soft and hardened shafts
- Meets original Department of Defense (DOD) specifications
- Manufactured in USA and RoHS compliant

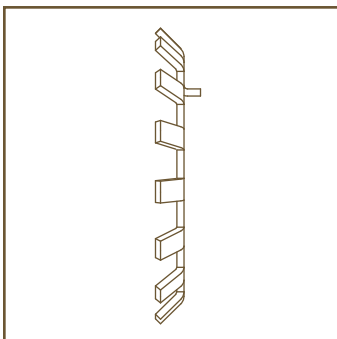
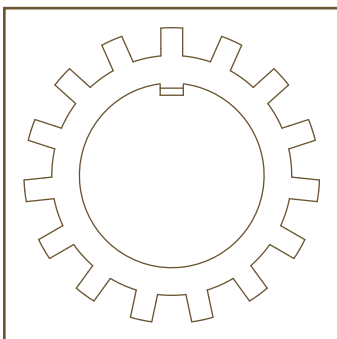
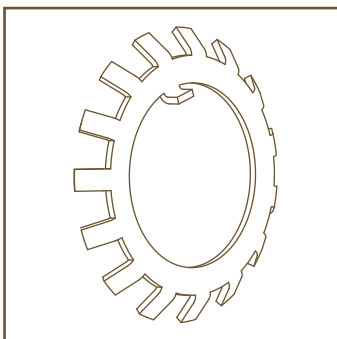
Applications:

- Corrosive environments
- Aeronautical applications
- Military and Defense Applications
- Pumps
- Non-balanced assemblies
- Bearing roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Lockwasher - Stainless Steel



Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Face Diameter (Inches)	Max. Width (Inches)
MS19070-003	0.406	0.875	0.640	0.046
MS19070-013	0.484	1.016	0.734	0.046
MS19070-023	0.601	1.156	0.827	0.046
MS19070-033	0.679	1.328	0.953	0.046
MS19070-043	0.801	1.531	1.140	0.046
MS19070-053	0.989	1.719	1.296	0.540
MS19070-063	1.193	1.922	1.515	0.540
MS19070-073	1.396	2.250	1.827	0.540
MS19070-083	1.583	2.469	2.030	0.063
MS19070-093	1.792	2.734	2.311	0.063
MS19070-103	1.992	2.922	2.468	0.063
MS19070-113	2.182	3.109	2.686	0.068
MS19070-123	2.400	3.344	2.874	0.068
MS19070-133	2.588	3.578	3.093	0.068
MS19070-143	2.791	3.828	3.343	0.068
MS19070-153	2.973	4.109	3.593	0.077
MS19070-163	3.177	4.375	3.874	0.077
MS19070-173	3.395	4.625	4.061	0.077
MS19070-183	3.582	4.938	4.326	0.100
MS19070-193	3.800	5.219	4.607	0.100
MS19070-203	3.988	5.500	4.858	0.100
MS19070-213	4.192	5.703	5.045	0.100
MS19070-223	4.395	6.063	5.326	0.132
MS19070-243	4.801	6.469	5.733	0.132
MS19070-263	5.191	7.031	6.233	0.132
MS19070-283	5.582	7.438	6.576	0.132
MS19070-303	5.983	8.063	7.123	0.164
MS19070-323	6.389	8.438	7.498	0.164
MS19070-343	6.764	9.063	8.091	0.164
MS19070-363	7.171	9.438	8.435	0.164
MS19070-383	7.577	9.875	8.841	0.164
MS19070-403	7.982	10.313	9.216	0.164

Face Flatness Specifications Available on Page X17

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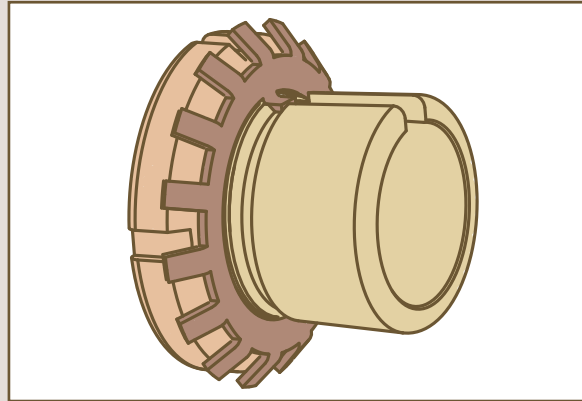
E8

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Introduction to Bearing Adapters

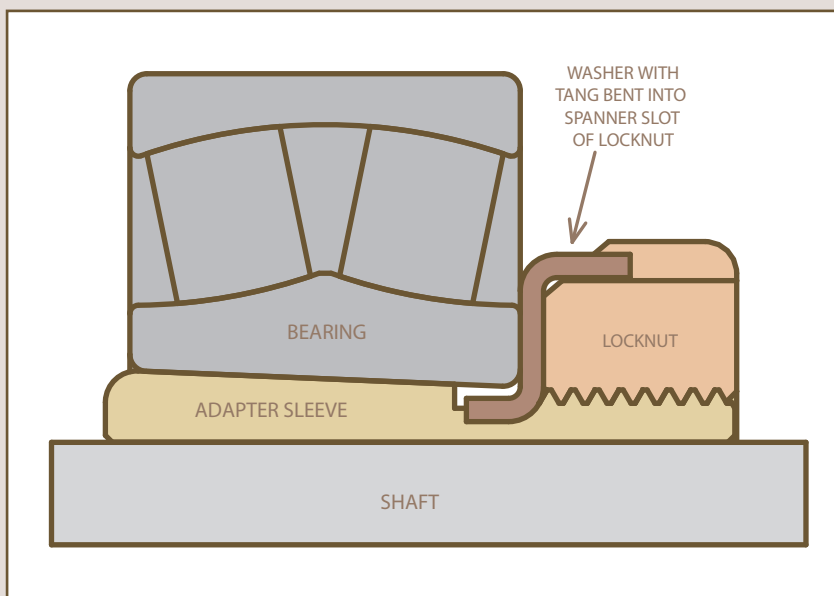
The origin of tapered bore adapter assemblies can be traced back to the start of Britain's Industrial Revolution in the late 1700's, and the growth of the British textile industry. The need to harness power from a water wheel through shafting and gearing to power the textile equipment led to the development of tapered bore adapter assemblies. The ceilings of the first textile mills were lined with row upon row of line shafting mounted through pillow blocks in which adapter sleeve assemblies were the interface between the housing of the pillow block and the rotating line shafts.

Today, tapered bore adapter assemblies are flexible, adjustable and critical power transmission accessories used to mount and secure tapered bearings and other PT components to cylindrical shafts and rotating assemblies. Tapered adapter sleeves allow bearings and PT components to be fitted to rough shafting that has been manufactured to wide tolerances. The use of a tapered bearing or PT component with an adapter sleeve provides the interference fit that is required in numerous applications, while eliminating the need for heating the assembly or press fitting.



Each of Whittet-Higgins tapered bore adapter assemblies are assembled prior to shipping and consist of a split sleeve, locknut, and lockwasher

Installation of the tapered bore assembly adapter begins by assembling the sleeve onto the corresponding shaft so that the taper of the outside of the sleeve meets the tapered bore of the bearing or PT component. The keyed bearing lockwasher is assembled past the threaded section of the sleeve and against the inner race of the tapered bearing or PT component. The bearing locknut is then threaded onto the sleeve and against the bearing lockwasher. As the locknut is tightened onto the threaded portion of the adapter, it creates a force that pushes the tapered bore of the bearing or PT component up the taper of the sleeve. This force causes the sleeve to compress and exert clamping forces around the shaft. Once fully pre-loaded, the entire assembly is securely fastened to the shaft when one of the tabs of the bearing lockwasher is depressed into the closest spanner slots of the bearing locknut. This style of adapter sleeve is not symmetric around the shaft's axis and therefore cannot be used in applications requiring high speeds or dynamic balancing.



Whittet-Higgins Company has been manufacturing high-precision tapered bore adapter assemblies since 1971. All tapered bore adapter sleeve assemblies are manufactured to meet and exceed the standard specifications for fit and finish as defined by the American National Standard Institute / American Bearing Manufacturers Standard (ANSI/ABMA 8.2-1999).



BEARING ADAPTER SETS - SNW-00 SERIES

ABMA/ANSI 8.2-1999 Specification

Benefits & Characteristics:

- Secures and locks tapered bore bearing to smooth shafting
- Locknut and lockwasher provide accurate bearing preloading
- Infinite axial adjustment and securing of tapered bore bearings and other power transmission components
- Ensures tapered bore bearings are secured concentrically to shafts
- Meets and exceeds ANSI/ABMA 8.2-1999 specifications
- Effective on soft and hardened shafts
- Manufactured in USA and RoHS compliant

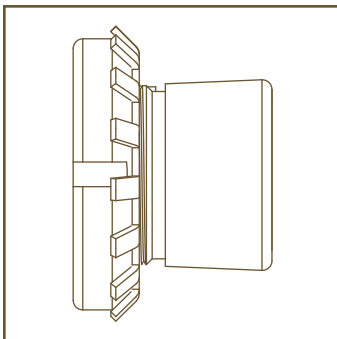
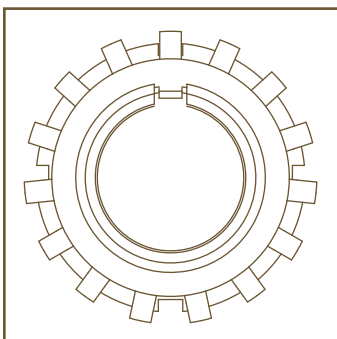
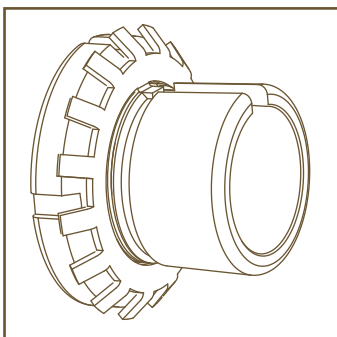
Applications:

- Non-balanced assemblies
- Pulp, paper, steel and other mill rolls
- Material moving lines and equipment
- Conveyor and roller assemblies
- Packaging equipment

Max Operating Temperature: 300 Deg F

Materials:

Sleeve / Locknut / Lockwasher - Carbon Steel



Part Number	Thread	Bore (Inches)	Max. Taper Diameter (Inches)	Max. Length (Inches)	Locknut	Lockwasher
SNW-04 X 1 1/16	0.781-32	0.688	0.855	1.244	N-04	W-04
SNW-05 X 1 1/16	0.969-32	0.688	1.052	1.279	N-05	W-05
SNW-05 X 3/4	0.969-32	0.750	1.052	1.279	N-05	W-05
SNW-06 X 15/16	1.173-18	0.938	1.256	1.363	N-06	W-06
SNW-06 X 1	1.173-18	1.000	1.256	1.363	N-06	W-06
SNW-07 X 1-1/16	1.376-18	1.063	1.459	1.469	N-07	W-07
SNW-07 X 1-1/8	1.376-18	1.125	1.459	1.469	N-07	W-07
SNW-07 X 1-3/16	1.376-18	1.188	1.459	1.469	N-07	W-07
SNW-7 X 1-1/4	1.376-18	1.250	1.459	1.469	N-07	W-07
SNW-08 X 1-1/4	1.563-18	1.250	1.659	1.514	N-08	W-08
SNW-08 X 1-5/16	1.563-18	1.313	1.659	1.514	N-08	W-08
SNW-08 X 1-3/8	1.563-18	1.375	1.659	1.514	N-08	W-08
SNW-09 X 1-5/16	1.767-18	1.312	1.863	1.594	N-09	W-09
SNW-09 X 1-3/8	1.767-18	1.375	1.863	1.594	N-09	W-09
SNW-09 X 1-7/16	1.767-18	1.438	1.863	1.594	N-09	W-09
SNW-09 X 1-1/2	1.767-18	1.500	1.863	1.594	N-09	W-09
SNW-10 X 1-5/8	1.967-18	1.625	2.070	1.775	N-10	W-10
SNW-10 X 1-11/16	1.967-18	1.688	2.070	1.775	N-10	W-10
SNW-10 X 1-3/4	1.967-18	1.750	2.070	1.775	N-10	W-10
SNW-11 X 1-13/16	2.157-18	1.813	2.273	1.855	N-11	W-11
SNW-11 X 1-3/4	2.157-18	1.750	2.273	1.855	N-11	W-11
SNW-11 X 1-7/8	2.157-18	1.875	2.273	1.855	N-11	W-11
SNW-11 X 1-15/16	2.157-18	1.938	2.273	1.855	N-11	W-11
SNW-11 X 2	2.157-18	2.000	2.273	1.855	N-11	W-11
SNW-12 X 2-1/16	2.360-18	2.063	2.408	1.999	N-12	W-12
SNW-13 X 2	2.548-18	2.000	2.683	2.110	N-13	W-13
SNW-13 X 2-3/16	2.548-18	2.188	2.683	2.110	N-13	W-13
SNW-13 X 2-1/4	2.548-18	2.250	2.683	2.110	N-13	W-13
SNW-13 X 2-5/16	2.548-18	2.313	2.683	2.110	N-13	W-13
SNW-14 X 2-5/16	2.751-18	2.313	2.894	2.284	N-14	W-14
SNW-15 X 2-3/8	2.933-12	2.375	3.090	2.306	AN-15	W-15
SNW15 X 2-7/16	2.933-12	2.438	3.090	2.306	AN-15	W-15
SNW-15 X 2-1/2	2.933-12	2.500	3.090	2.306	AN-15	W-15
SNW-16 X 2-11/16	3.137-12	2.688	3.293	2.386	AN-16	W-16
SNW-16 X 2-3/4	3.137-12	2.750	3.293	2.386	AN-16	W-16

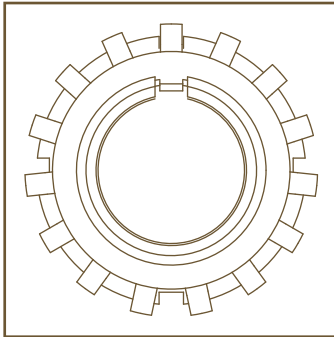
(Table Continued on Next Page)

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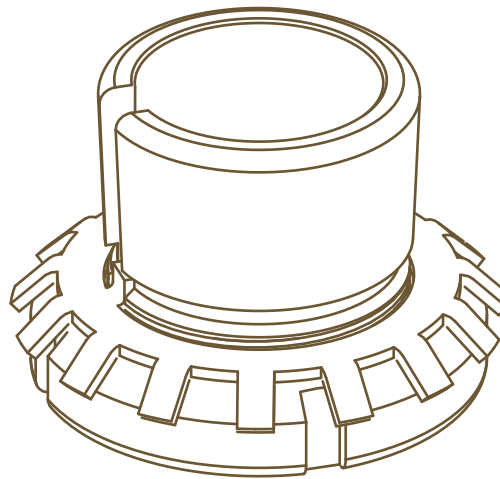


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For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

Part Number	Thread	Bore (Inches)	Max. Taper Diameter (Inches)	Max. Length (Inches)	Locknut	Lockwasher
SNW-17 X 2-15/16	3.340-12	2.938	3.497	2.496	AN-17	W-17
SNW-7 X 3	3.340-12	3.000	3.497	2.496	AN-17	W-17
SNW-18 X 3-3/16	3.527-12	3.188	3.700	2.656	AN-18	W-18
SNW-18 X 3-1/4	3.527-12	3.250	3.700	2.656	AN-18	W-18
SNW-19 X 3-15/16	3.730-12	3.313	3.904	2.770	AN-19	W-19
SNW-20 X 3-7/16	3.918-12	3.438	4.107	2.879	AN-20	W-20
SNW-20 X 3-1/2	3.918-12	3.500	4.107	2.879	AN-20	W-20
SNW-21 X 3-11/16	4.122-12	3.688	4.314	2.997	AN-21	W-21
SNW-22 X 3-11/16	4.325-12	3.688	4.524	3.216	AN-22	W-22
SNW-22 X 3-15/16	4.325-12	3.938	4.524	3.216	AN-22	W-22
SNW-22 X 4	4.325-12	4.000	4.524	3.216	AN-22	W-22
SNW-24 X 4-3/16	4.716-12	4.188	4.937	3.476	AN-24	W-24
SNW-24 X 4-1/4	4.716-12	4.250	4.937	3.476	AN-24	W-24
SNW-26 X 4-7/16	5.106-12	4.438	5.350	3.772	AN-26	W-26
SNW-26 X 4-1/2	5.106-12	4.500	5.350	3.772	AN-26	W-26
SNW-28 X 4-7/8	5.497-12	4.875	5.757	3.991	AN-28	W-28
SNW-28 X 4-15/16	5.497-12	4.938	5.757	3.991	AN-28	W-28
SNW-28 X 5	5.497-12	5.000	5.757	3.991	AN-28	W-28
SNW-30 X 5-3/16	5.888-12	5.188	6.167	4.251	AN-30	W-30
SNW-30 X 5-1/4	5.888-12	5.250	6.167	4.251	AN-30	W-30
SNW-32 X 5-7/16	6.284-8	5.438	6.584	4.588	AN-32	W-32
SNW-34 X 5-15/16	6.659-8	5.938	6.997	4.857	AN-34	W-34
SNW-36 X 6-7/16	7.066-8	6.438	7.404	5.048	AN-36	W-36
SNW-38 X 6-15/16	7.472-8	6.938	7.814	5.271	AN-38	W-38
SNW-40 X 7-3/16	7.847-8	7.188	8.221	5.494	AN-40	W-40
SNW-44 X 7-15/16	8.628-8	7.938	9.041	5.911	N-44	W-44





BEARING ADAPTER SETS - SNW-100 SERIES

ABMA/ANSI 8.2-1999 Specification

Benefits & Characteristics:

- Secures and locks tapered bore bearing to smooth shafting
- Locknut and lockwasher provide accurate bearing preloading
- Infinite axial adjustment and securing of tapered bore bearings and other power transmission components
- Ensures tapered bore bearings are secured concentrically to shafts
- Meets and exceeds ANSI/ABMA 8.2-1999 specifications
- Effective on soft and hardened shafts
- Manufactured in USA and RoHS compliant

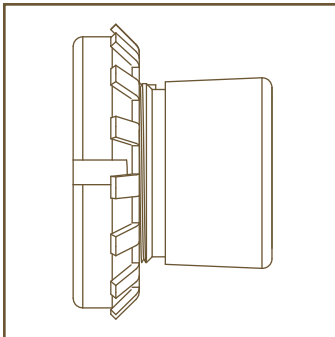
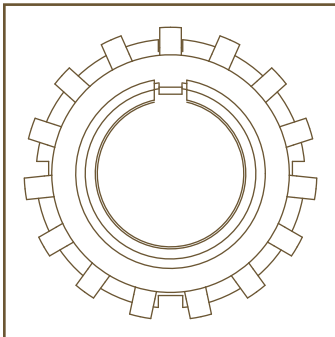
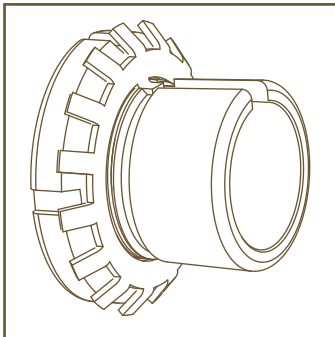
Applications:

- Non-balanced assemblies
- Pulp, paper, steel and other mill rolls
- Material moving lines and equipment
- Conveyor and roller assemblies
- Packaging equipment

Max Operating Temperature: 300 Deg F

Materials:

Sleeve / Locknut / Lockwasher - Carbon Steel



Part Number	Thread	Bore (Inches)	Max. Taper Diameter (Inches)	Max. Length (Inches)	Locknut	Lockwasher
SNW-104 X 11/16	0.781-32	0.688	0.875	1.480	N-04	W-04
SNW-105 X 3/4	0.969-32	0.750	1.082	1.637	N-05	W-05
SNW-106 X 15/16	1.173-18	0.938	1.292	1.799	N-06	W-06
SNW-107 X 1-3/16	1.376-18	1.188	1.499	1.942	N-07	W-07
SNW-108 X 1-5/16	1.563-18	1.313	1.702	2.025	N-08	W-08
SNW-109 X 1-7/16	1.767-18	1.438	1.909	2.143	N-09	W-09
SNW-109 X 1-1/2	1.767-18	1.500	1.909	2.143	N-09	W-09
SNW-110 X 1-11/16	1.967-18	1.688	2.122	2.404	N-10	W-10
SNW-110 X 1-3/4	1.967-18	1.750	2.122	2.404	N-10	W-10
SNW-111 X 1-7/8	2.157-18	1.875	2.329	2.526	N-11	W-11
SNW-111 X 1-15/16	2.157-18	1.938	2.329	2.526	N-11	W-11
SNW-111 X 2	2.157-18	2.000	2.329	2.526	N-11	W-11
SNW-112 X 2-1/16	2.360-18	2.063	2.535	2.669	N-12	W-12
SNW-113 X 2-3/16	2.548-18	2.188	2.739	2.781	N-13	W-13
SNW-113 X 2-1/4	2.548-18	2.250	2.739	2.781	N-13	W-13
SNW-114 X 2-5/16	2.751-18	2.313	2.950	2.955	N-14	W-14
SNW-115 X 2-3/8	2.933-12	2.375	3.155	3.094	AN-15	W-15
SNW-115 X 2-7/16	2.933-12	2.438	3.155	3.094	AN-15	W-15
SNW-115 X 2-1/2	2.933-12	2.500	3.155	3.094	AN-15	W-15
SNW-116 X 2-3/4	3.137-12	2.750	3.362	3.214	AN-16	W-16
SNW-117 X 2-15/16	3.340-12	2.938	3.566	3.322	AN-17	W-17
SNW-117 X 3	3.340-12	3.000	3.566	3.322	AN-17	W-17
SNW-118 X 3-3/16	3.527-12	3.188	3.776	3.563	AN-18	W-18
SNW-118 X 3-1/4	3.527-12	3.250	3.776	3.563	AN-18	W-18
SNW-119 X 3-5/16	3.730-12	3.313	3.982	3.712	AN-19	W-19
SNW-120 X 3-7/16	3.918-12	3.438	4.199	3.981	AN-20	W-20
SNW-120 X 3-1/2	3.918-12	3.500	4.199	3.981	AN-20	W-20
SNW-121 X 3-11/16	4.122-12	3.688	4.412	4.177	AN-21	W-21
SNW-122 X 3-11/16	4.325-12	3.688	4.619	4.358	AN-22	W-22
SNW-122 X 3-15/16	4.325-12	3.938	4.619	4.358	AN-22	W-22
SNW-122 X 4	4.325-12	4.000	4.619	4.358	AN-22	W-22
SNW-124 X 4-3/16	4.716-12	4.188	5.035	4.658	AN-24	W-24
SNW-124 X 4-1/4	4.716-12	4.250	5.035	4.658	AN-24	W-24
SNW-126 X 4-7/16	5.106-12	4.438	5.452	4.992	AN-26	W-26
SNW-126 X 4-1/2	5.106-12	4.500	5.452	4.992	AN-26	W-26

(Table Continued on Next Page)

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

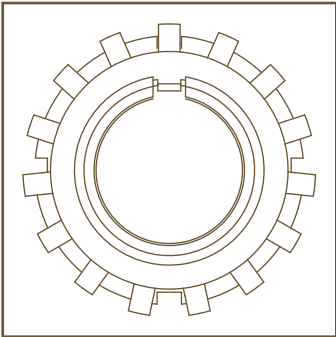
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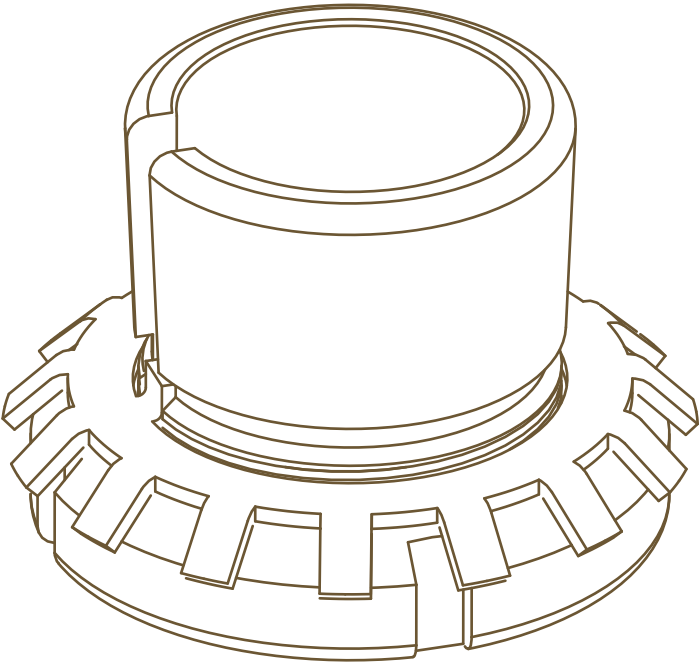
Engineering & Sales Support: (401) 728-0700



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Part Number	Thread	Bore (Inches)	Max. Taper Diameter (Inches)	Max. Length (Inches)	Locknut	Lockwasher
SNW-128 x 4-15/16	5.497-12	4.938	5.869	5.333	AN-28	W-28
SNW-128 X 5	5.497-12	5.000	5.869	5.333	AN-28	W-28
SNW-130 X 5-3/16	5.888-12	5.188	6.282	5.631	AN-30	W-30
SNW-130 X 5-1/4	5.888-12	5.250	6.282	5.631	AN-30	W-30
SNW-132 X 5-7/16	6.284-8	5.438	6.696	5.930	AN-32	W-32
SNW-134 X 5-15/16	6.659-8	5.938	7.109	6.198	AN-34	W-34
SNW-136 X 6-7/16	7.066-8	6.438	7.522	6.466	AN-36	W-36
SNW-138 X 6-15/16	7.472-8	6.938	7.939	6.768	AN-38	W-38
SNW-140 X 7-3/16	7.847-8	7.188	8.355	7.105	AN-40	W-40
SNW-144 X 7-15/16	8.628-8	7.938	9.153	7.297	N-44	W-44



For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com



Benefits & Characteristics:

- Secures and locks tapered bore bearing to smooth shafting
- Locknut and lockwasher provide accurate bearing preloading
- Infinite axial adjustment and securing of tapered bore bearings and other power transmission components
- Ensures tapered bore bearings are secured concentrically to shafts
- Meets and exceeds ANSI/ABMA 8.2-1999 specifications
- Effective on soft and hardened shafts
- Manufactured in USA and RoHS compliant

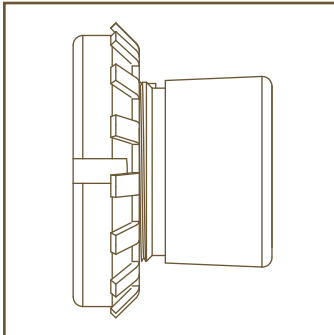
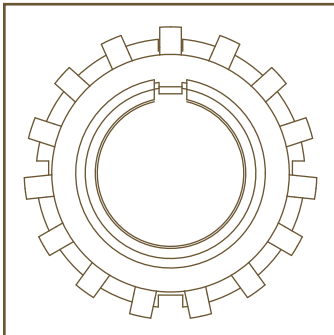
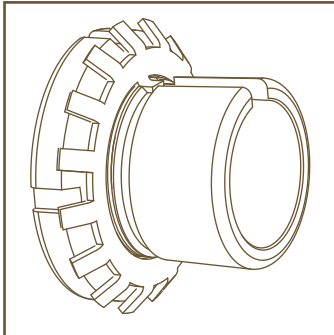
Applications:

- Non-balanced assemblies
- Pulp, paper, steel and other mill rolls
- Material moving lines and equipment
- Conveyor and roller assemblies
- Packaging equipment

Max Operating Temperature: 300 Deg F

Materials:

Sleeve / Locknut / Lockwasher - Carbon Steel



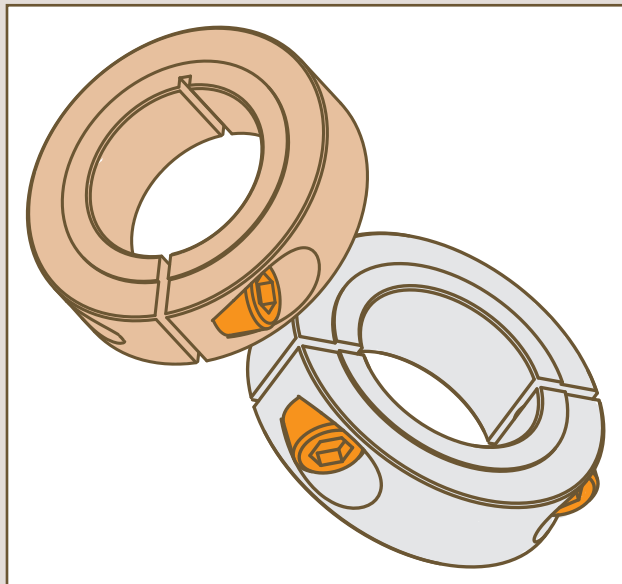
Part Number	Thread	Bore (Inches)	Max. Taper Diameter (Inches)	Max. Length (Inches)	Locknut	Lockwasher
SNW-3122 X 3-15/16	4.325-12	3.940	4.520	3.220	N-022	W-022
SNW-3124 X 4-3/16	4.716-12	4.190	4.940	3.480	N-024	W-024
SNW-3126 X 4-7/16	5.106-12	4.440	5.350	3.770	N-026	W-026
SNW-3128 X 4-15/16	5.497-12	4.940	5.760	3.990	N-028	W-028
SNW-3130 X 5-3/16	5.888-12	5.190	6.170	4.250	N-030	W-030
SNW-3132 X 5-7/16	6.284-8	5.440	6.580	4.590	N-032	W-032
SNW-3134 X 5-15/16	6.659-8	5.940	7.000	4.860	N-034	W-034
SNW-3136 X 6-7/16	7.066-8	6.440	7.400	5.050	N-036	W-036
SNW-3138 X 6-15/16	7.472-8	6.940	7.810	5.270	N-038	W-038
SNW-3140 X 7-3/16	7.847-8	7.190	8.220	5.490	N-040	W-040
SNW-3144 X 7-15/16	8.628-8	7.940	9.040	5.910	N-044	W-044

Introduction to Collars & Shrink Discs

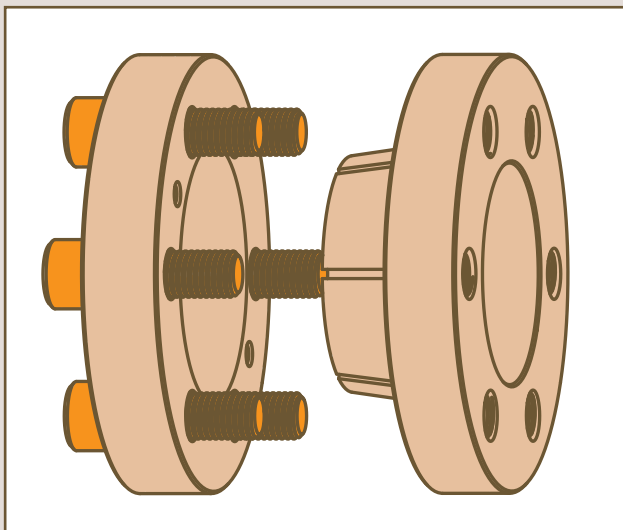
The first shaft collars were produced as the set screw collar and mainly used in early textile manufacturing mills on line shafting. These first-generation shaft collars were manufactured with a drilled and tapped hole from the outside diameter, where a square-headed bolt was threaded radially through the product and driven to the center of the shaft, providing the required holding force. As these square-headed bolts protruded from the outside of the shaft collar, often times they would catch on the clothing of mill workers, resulting in serious injuries. To significantly reduce the chance of injuries two men William G. Allen and Howard T. Hallowell - ,in the early 1900's, improved and patented a new shaft collar with a safety-style set screw, which used a hex socket head set screw. While an important improvement in safety, the set screw design continued to cause issues as it would damage the shaft that the collar was applied to.

To resolve the damage that the set screw style collar design was causing, a new generation of shaft collars was created, known as clamp-style shaft collars. These come in one-piece and two-piece designs, known as Clamp Collars and Split Collars at Whittet-Higgins Company. In addition to these shaft collars, Shrink Discs were also designed for critical applications where installation access tangent to the shaft is unavailable.

Whittet-Higgins' one-piece clamp collars, are slit once from the outside diameter to the bore, where both sides of the slit are joined by a socket head screw that compresses the collar and locks it in place on the shaft. This better allows a concentric setting on a shaft or spindle, providing superior assembly for greater holding, without marring the shaft surface.



Whittet-Higgins' two-piece split collars, are slit in half from the outside diameter to the bore, where both halves are joined by two socket head screws that pull together both sides of the collar, reducing the overall bore diameter and securely fastening the collar to the shaft or spindle without having to remove other mounted components.



Bearlok Shrink Disc, Whittet-Higgins' compression collars, are comprised of a base nut, compression ring, and socket head cap screws. The base nut has a thick walled main body, a thin, externally-tapered back slit into multiple sections, a smooth bore, and through-tapped holes for the socket head cap screws. The compression ring is manufactured with the same sized outer diameter as the base nut, with a tapered bore and through tapped holes mating those of the nut. Tightening the socket cap screws through the ring holes into the nut holes drives the sections of the tapered rear of the nut radially inward, evenly securing the shrink disc collar to the shaft.



SHRINK DISC - BLC SERIES - INCH

Mechanical Self-Locking

Benefits & Characteristics:

- Higher axial loading capacity than clamp & set collars
- Resists draw-back and assembly loosening of traditional shrink discs
- Designed for higher speed applications where dynamic balancing is required
- Uniform 360 degree interlocking clamping to center of shaft
- Allows longitudinal (Z axis) access to adjusting and locking of retaining device to assembly
- Allows infinite adjustment and preloading
- Black oxide coated with wax finish to inhibit corrosion
- Eliminates expensive cutting of keyway or threaded shafts
- Effective on both soft and hardened shafts
- Manufactured in USA and RoHS compliant

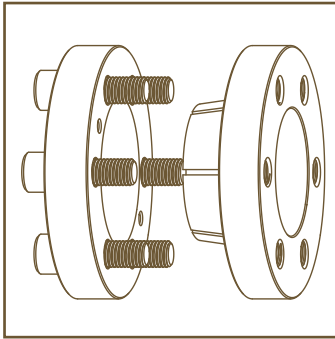
Applications:

- Shaft stops and shoulders on linear actuators
- Balanced design for high speed assemblies
- Mining, mineral extraction, & drilling operations
- High speed rolls in processing equipment
- Numerous other machinery applications

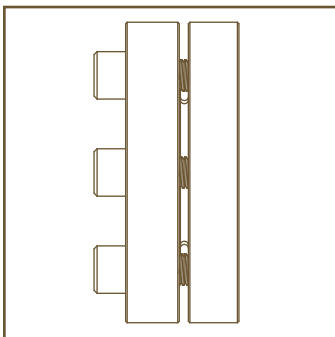
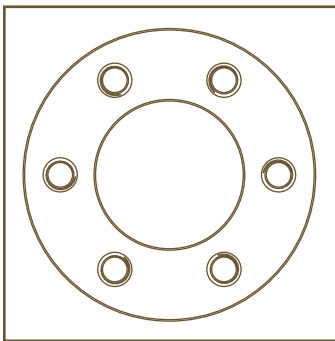
Max Operating Temperature: 300 Deg F

Materials:

Base Smooth Nut - Carbon Steel
Compression Ring - Hardened Alloy
Fastener - Hardened Alloy



Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Width (Inches)	Socket Head Cap Screw	Suggested Torque (In-Lbs)
BLC-750	0.750	1.985	0.850	1/4 - 28	150
BLC-1000	1.000	2.235	0.850	1/4 - 28	150
BLC-1250	1.250	2.725	1.115	5/16 - 24	260
BLC-1500	1.500	2.975	1.115	5/16 - 24	260
BLC-1750	1.750	3.225	1.115	5/16 - 24	260
BLC-2000	2.000	3.715	1.365	3/8 - 24	500
BLC-2250	2.250	3.965	1.365	3/8 - 24	500
BLC-2500	2.500	4.215	1.365	3/8 - 24	500



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G1

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ONE-PIECE COLLAR - CC SERIES - INCH

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- More secure locking than set screw collars
- Infinite axial adjustment and securing of bearings and other power transmission components
- Prevents assemblies from loosening due to vibration, shock and torque
- Eliminates the need for cutting or repairing shaft keyway
- Black oxide coating with wax finish to prevent corrosion
- Effective on both soft and hardened shafts
- Manufactured in USA and RoHS compliant

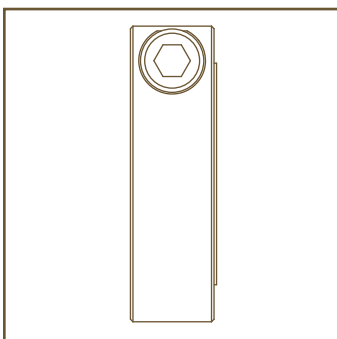
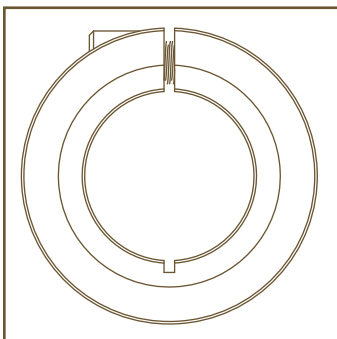
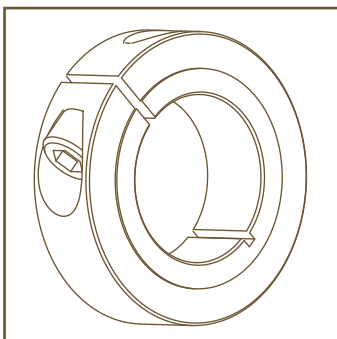
Applications:

- Lower speed assemblies and equipment
- Non-balanced assemblies
- Shaft stops and shoulders on linear actuators
- Conveyor and roller assemblies
- Packaging equipment

Max Operating Temperature: 300 Deg F

Materials:

Collar - Carbon Steel
Fastener - Hardened Alloy



Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (In-Lbs)
CC-02	0.125	0.625	0.281	220	4-40	14
CC-03	0.188	0.625	0.281	235	4-40	14
CC-04	0.250	0.625	0.281	250	4-40	14
CC-05	0.313	0.688	0.281	260	4-40	14
CC-06	0.375	0.875	0.344	410	6-32	25
CC-07	0.438	0.938	0.344	425	6-32	25
CC-08	0.500	1.125	0.438	790	10-32	60
CC-09	0.563	1.313	0.438	805	10-32	60
CC-10	0.625	1.313	0.438	820	10-32	60
CC-11	0.688	1.500	0.500	1555	1/4-28	150
CC-12	0.750	1.500	0.500	1570	1/4-28	150
CC-13	0.813	1.625	0.500	1585	1/4-28	150
CC-14	0.875	1.625	0.500	1600	1/4-28	150
CC-15	0.938	1.750	0.500	1620	1/4-28	150
CC-16	1.000	1.750	0.500	1635	1/4-28	150
CC-17	1.063	1.875	0.500	1650	1/4-28	150
CC-18	1.125	1.875	0.500	1665	1/4-28	150
CC-19	1.188	2.063	0.500	1680	1/4-28	150
CC-20	1.250	2.063	0.500	1695	1/4-28	150
CC-21	1.313	2.250	0.563	1810	1/4-28	150
CC-22	1.375	2.250	0.563	1830	1/4-28	150
CC-23	1.438	2.375	0.563	1845	1/4-28	150
CC-24	1.500	2.375	0.563	1865	1/4-28	150
CC-25	1.563	2.375	0.563	1880	1/4-28	150
CC-26	1.625	2.750	0.625	2790	5/16-24	260
CC-27	1.688	2.750	0.625	2810	5/16-24	260
CC-28	1.750	2.750	0.625	2830	5/16-24	260
CC-29	1.813	2.875	0.625	2850	5/16-24	260
CC-30	1.875	2.875	0.625	2870	5/16-24	260
CC-31	1.938	3.000	0.625	2890	5/16-24	260
CC-32	2.000	3.000	0.625	2910	5/16-24	260
CC-33	2.063	3.250	0.750	3170	5/16-24	260
CC-34	2.125	3.250	0.750	3190	5/16-24	260
CC-35	2.188	3.250	0.750	3210	5/16-24	260
CC-36	2.250	3.250	0.750	3235	5/16-24	260

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For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

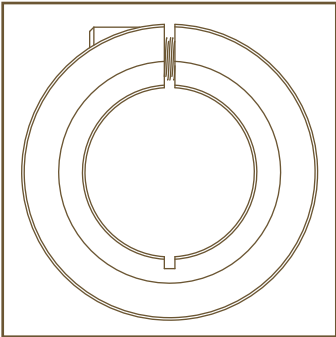
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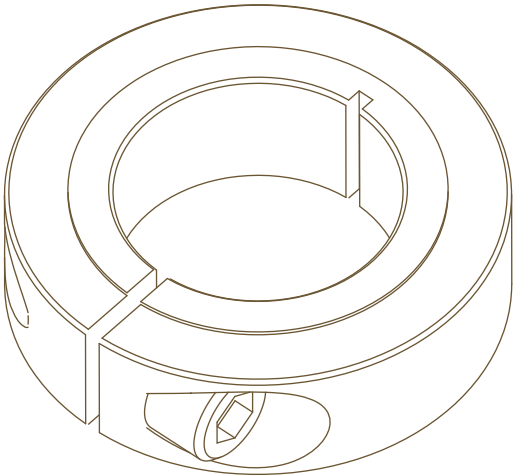
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For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Inches)	Socket Head Cap Screw	Suggested Torque (in-Lbs)
CC-37	2.313	3.500	0.750	3260	5/16-24	260
CC-38	2.375	3.500	0.750	3290	5/16-24	260
CC-39	2.438	3.750	0.875	5300	3/8-24	500
CC-40	2.500	3.750	0.875	5325	3/8-24	500
CC-41	2.563	4.000	0.875	5350	3/8-24	500
CC-42	2.625	4.000	0.875	5380	3/8-24	500
CC-43	2.688	4.000	0.875	5410	3/8-24	500
CC-44	2.750	4.000	0.875	5435	3/8-24	500
CC-45	2.813	4.250	0.875	5465	3/8-24	500
CC-46	2.875	4.250	0.875	5495	3/8-24	500
CC-47	2.938	4.250	0.875	5520	3/8-24	500
CC-48	3.000	4.250	0.875	5550	3/8-24	500
CC-50	3.125	4.500	0.875	5605	3/8-24	500
CC-52	3.250	4.500	0.875	5660	3/8-24	500
CC-54	3.375	4.750	0.875	5715	3/8-24	500
CC-56	3.500	4.750	0.875	5770	3/8-24	500
CC-58	3.625	5.000	0.875	5825	3/8-24	500
CC-60	3.750	5.000	0.875	5880	3/8-24	500
CC-62	3.875	5.250	0.875	5935	3/8-24	500
CC-64	4.000	5.250	0.875	5995	3/8-24	500

Whittet-Higgins Clamp Collars are manufactured in a multitude of sizes, materials and configurations to address our customers specific applications. If you cannot find the correct product, need further help selecting a product for a new application, or need one of the standard products modified for your specialized application, please contact one of our engineers at (401) 728-0700





ONE-PIECE COLLAR - CC SERIES - STAINLESS

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Corrosion resistant stainless steel
- More secure locking than set screw collars
- Infinite axial adjustment and securing of bearings and other power transmission components
- Prevents assemblies from loosening due to vibration, shock and torque
- Eliminates the need for cutting or repairing shaft keyway
- Effective on both soft and hardened shafts
- Manufactured in USA and RoHS compliant

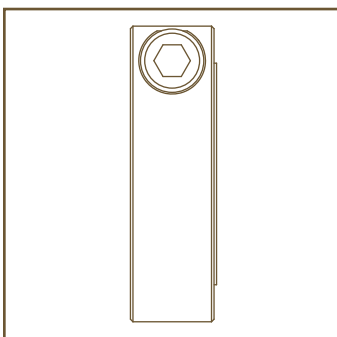
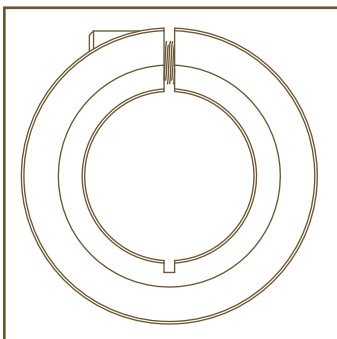
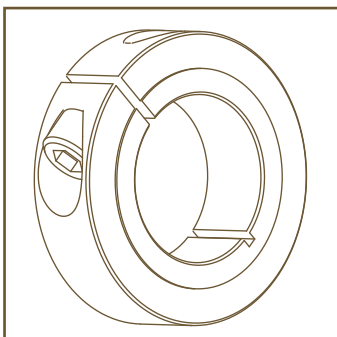
Applications:

- Corrosive environments
- Lower speed assemblies and equipment
- Non-balanced assemblies
- Shaft stops and shoulders on linear actuators
- Food conveyor and roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Collar - Stainless Steel
Fastener - Stainless Steel



Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (In-Lbs)
CC-02S	0.125	0.625	0.281	110	4-40	10
CC-03S	0.188	0.625	0.281	115	4-40	10
CC-04S	0.250	0.625	0.281	125	4-40	10
CC-05S	0.313	0.688	0.281	130	4-40	10
CC-06S	0.375	0.875	0.344	205	6-32	18
CC-07S	0.438	0.938	0.344	210	6-32	18
CC-08S	0.500	1.125	0.438	395	10-32	42
CC-09S	0.563	1.313	0.438	400	10-32	42
CC-10S	0.625	1.313	0.438	410	10-32	42
CC-11S	0.688	1.500	0.500	775	1/4-28	105
CC-12S	0.750	1.500	0.500	785	1/4-28	105
CC-13S	0.813	1.625	0.500	790	1/4-28	105
CC-14S	0.875	1.625	0.500	800	1/4-28	105
CC-15S	0.938	1.750	0.500	810	1/4-28	105
CC-16S	1.000	1.750	0.500	815	1/4-28	105
CC-17S	1.063	1.875	0.500	825	1/4-28	105
CC-18S	1.125	1.875	0.500	830	1/4-28	105
CC-19S	1.188	2.063	0.500	840	1/4-28	105
CC-20S	1.250	2.063	0.500	845	1/4-28	105
CC-21S	1.313	2.250	0.563	905	1/4-28	105
CC-22S	1.375	2.250	0.563	915	1/4-28	105
CC-23S	1.438	2.375	0.563	920	1/4-28	105
CC-24S	1.500	2.375	0.563	930	1/4-28	105
CC-25S	1.563	2.375	0.563	940	1/4-28	105
CC-26S	1.625	2.750	0.625	1395	5/16-24	182
CC-27S	1.688	2.750	0.625	1405	5/16-24	182
CC-28S	1.750	2.750	0.625	1415	5/16-24	182
CC-29S	1.813	2.875	0.625	1425	5/16-24	182
CC-30S	1.875	2.875	0.625	1435	5/16-24	182
CC-31S	1.938	3.000	0.625	1445	5/16-24	182
CC-32S	2.000	3.000	0.625	1455	5/16-24	182
CC-33S	2.063	3.250	0.750	1585	5/16-24	182
CC-34S	2.125	3.250	0.750	1595	5/16-24	182
CC-35S	2.188	3.250	0.750	1605	5/16-24	182
CC-36S	2.250	3.250	0.750	1615	5/16-24	182

(Table Continued on Next Page)

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

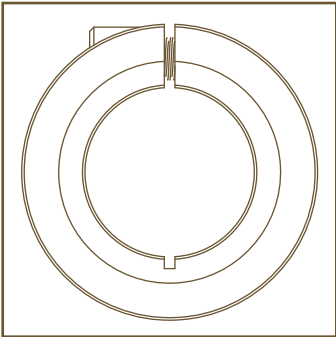
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Engineering & Sales Support: (401) 728-0700



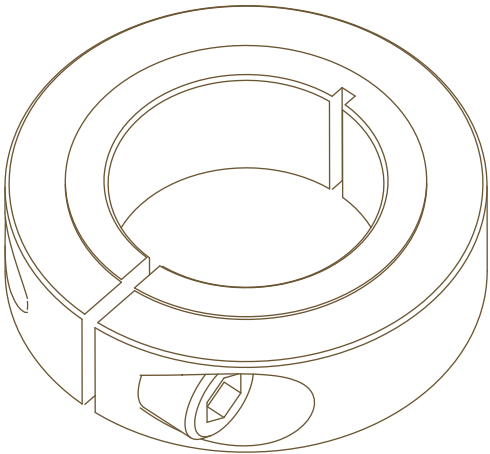
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For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Inches)	Socket Head Cap Screw	Suggested Torque (in-Lbs)
CC-37S	2.313	3.500	0.750	1630	5/16-24	182
CC-38S	2.375	3.500	0.750	1645	5/16-24	182
CC-39S	2.438	3.750	0.875	2650	3/8-24	350
CC-40S	2.500	3.750	0.875	2660	3/8-24	350
CC-41S	2.563	4.000	0.875	2675	3/8-24	350
CC-42S	2.625	4.000	0.875	2690	3/8-24	350
CC-43S	2.688	4.000	0.875	2705	3/8-24	350
CC-44S	2.750	4.000	0.875	2715	3/8-24	350
CC-45S	2.813	4.250	0.875	2730	3/8-24	350
CC-46S	2.875	4.250	0.875	2745	3/8-24	350
CC-47S	2.938	4.250	0.875	2760	3/8-24	350
CC-48S	3.000	4.250	0.875	2775	3/8-24	350

Whittet-Higgins Clamp Collars are manufactured in a multitude of sizes, materials and configurations to address our customers specific applications. If you cannot find the correct product, need further help selecting a product for a new application, or need one of the standard products modified for your specialized application, please contact one of our engineers at (401) 728-0700





ONE-PIECE COLLAR - CC SERIES - ALUMINUM

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Lightweight aluminum alloy
- More secure locking than set screw collars
- Infinite axial adjustment and securing of bearings and other power transmission components
- Prevents assemblies from loosening due to vibration, shock and torque
- Eliminates the need for cutting or repairing shaft keyway
- Effective on both soft and hardened shafts
- Manufactured in USA and RoHS compliant

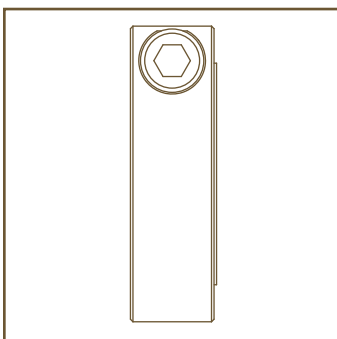
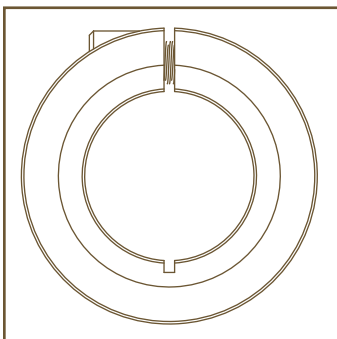
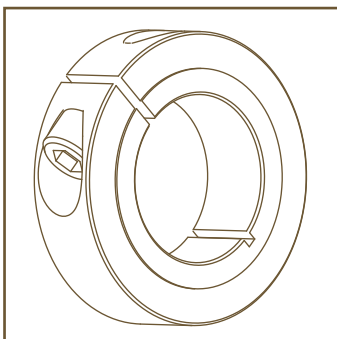
Applications:

- Corrosive environments
- Lower speed assemblies and equipment
- Non-balanced assemblies
- Shaft stops and shoulders on linear actuators
- Food conveyor and roller assemblies

Max Operating Temperature: 225 Deg F

Materials:

Collar - Aluminum Alloy
Fastener - Hardened Alloy



Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (In-Lbs)
CC-02A	0.125	0.625	0.281	100	4-40	14
CC-03A	0.188	0.625	0.281	110	4-40	14
CC-04A	0.250	0.625	0.281	115	4-40	14
CC-05A	0.313	0.688	0.281	120	4-40	14
CC-06A	0.375	0.875	0.344	190	6-32	25
CC-07A	0.438	0.938	0.344	200	6-32	25
CC-08A	0.500	1.125	0.438	370	10-32	60
CC-09A	0.563	1.313	0.438	375	10-32	60
CC-10A	0.625	1.313	0.438	380	10-32	60
CC-11A	0.688	1.500	0.500	730	1/4-28	150
CC-12A	0.750	1.500	0.500	735	1/4-28	150
CC-13A	0.813	1.625	0.500	745	1/4-28	150
CC-14A	0.875	1.625	0.500	750	1/4-28	150
CC-15A	0.938	1.750	0.500	760	1/4-28	150
CC-16A	1.000	1.750	0.500	765	1/4-28	150
CC-17A	1.063	1.875	0.500	775	1/4-28	150
CC-18A	1.125	1.875	0.500	780	1/4-28	150
CC-19A	1.188	2.063	0.500	790	1/4-28	150
CC-20A	1.250	2.063	0.500	795	1/4-28	150
CC-21A	1.313	2.250	0.563	850	1/4-28	150
CC-22A	1.375	2.250	0.563	860	1/4-28	150
CC-23A	1.438	2.375	0.563	865	1/4-28	150
CC-24A	1.500	2.375	0.563	875	1/4-28	150
CC-25A	1.563	2.375	0.563	880	1/4-28	150
CC-26A	1.625	2.750	0.625	1310	5/16-24	260
CC-27A	1.688	2.750	0.625	1320	5/16-24	260
CC-28A	1.750	2.750	0.625	1330	5/16-24	260
CC-29A	1.813	2.875	0.625	1340	5/16-24	260
CC-30A	1.875	2.875	0.625	1345	5/16-24	260
CC-31A	1.938	3.000	0.625	1355	5/16-24	260
CC-32A	2.000	3.000	0.625	1365	5/16-24	260
CC-33A	2.063	3.250	0.750	1490	5/16-24	260
CC-34A	2.125	3.250	0.750	1495	5/16-24	260
CC-35A	2.188	3.250	0.750	1505	5/16-24	260
CC-36A	2.250	3.250	0.750	1520	5/16-24	260

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For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

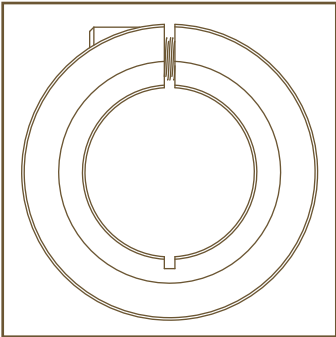
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G4

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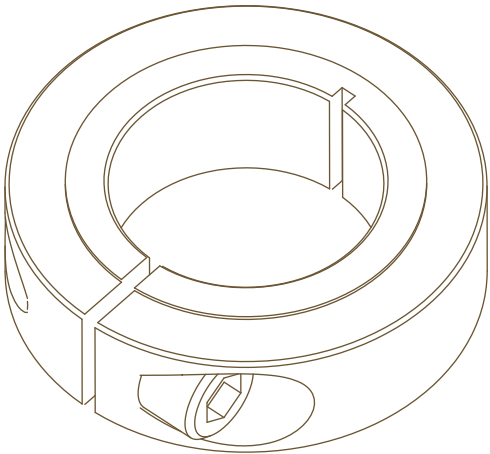
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For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Inches)	Socket Head Cap Screw	Suggested Torque (in-Lbs)
CC-37A	2.313	3.500	0.750	1530	5/16-24	260
CC-38A	2.375	3.500	0.750	1545	5/16-24	260
CC-39A	2.438	3.750	0.875	2490	3/8-24	500
CC-40A	2.500	3.750	0.875	2500	3/8-24	500
CC-41A	2.563	4.000	0.875	2515	3/8-24	500
CC-42A	2.625	4.000	0.875	2525	3/8-24	500
CC-43A	2.688	4.000	0.875	2540	3/8-24	500
CC-44A	2.750	4.000	0.875	2550	3/8-24	500
CC-45A	2.813	4.250	0.875	2565	3/8-24	500
CC-46A	2.875	4.250	0.875	2580	3/8-24	500
CC-47A	2.938	4.250	0.875	2590	3/8-24	500
CC-48A	3.000	4.250	0.875	2605	3/8-24	500

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TWO-PIECE COLLAR - SC SERIES - INCH

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Assembles onto shaft without removing other existing power transmission components
- More secure locking than set screw collars
- Infinite axial adjustment and securing of bearings and other power transmission components
- Prevents assemblies from loosening due to vibration, shock and torque
- Eliminates the need for cutting or repairing shaft keyway
- Black oxide coating with wax finish to prevent corrosion
- Effective on both soft and hardened shafts
- Manufactured in USA and RoHS compliant

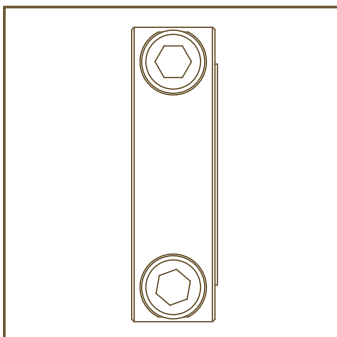
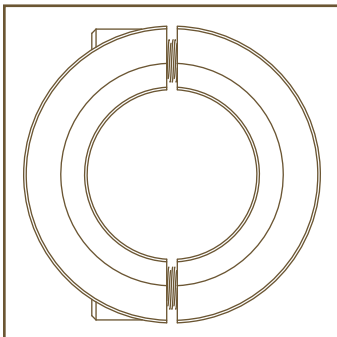
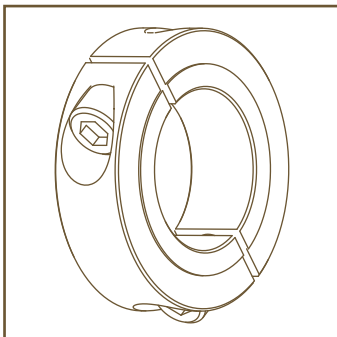
Applications:

- Lower speed assemblies and equipment
- Non-balanced assemblies
- Shaft stops and shoulders on linear actuators
- Conveyor and roller assemblies
- Packaging equipment

Max Operating Temperature: 300 Deg F

Materials:

Collar - Carbon Steel
Fastener - Hardened Alloy



Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (In-Lbs)
SC-02	0.125	0.625	0.281	240	4-40	14
SC-03	0.188	0.625	0.281	255	4-40	14
SC-04	0.250	0.625	0.281	275	4-40	14
SC-05	0.313	0.688	0.281	285	4-40	14
SC-06	0.375	0.875	0.344	450	6-32	25
SC-07	0.438	0.938	0.344	465	6-32	25
SC-08	0.500	1.125	0.438	865	10-32	60
SC-09	0.563	1.313	0.438	885	10-32	60
SC-10	0.625	1.313	0.438	900	10-32	60
SC-11	0.688	1.500	0.500	1710	1/4-28	150
SC-12	0.750	1.500	0.500	1725	1/4-28	150
SC-13	0.813	1.625	0.500	1740	1/4-28	150
SC-14	0.875	1.625	0.500	1760	1/4-28	150
SC-15	0.938	1.750	0.500	1780	1/4-28	150
SC-16	1.000	1.750	0.500	1795	1/4-28	150
SC-17	1.063	1.875	0.500	1815	1/4-28	150
SC-18	1.125	1.875	0.500	1830	1/4-28	150
SC-19	1.188	2.063	0.500	1845	1/4-28	150
SC-20	1.250	2.063	0.500	1865	1/4-28	150
SC-21	1.313	2.250	0.563	1990	1/4-28	150
SC-22	1.375	2.250	0.563	2010	1/4-28	150
SC-23	1.438	2.375	0.563	2030	1/4-28	150
SC-24	1.500	2.375	0.563	2050	1/4-28	150
SC-25	1.563	2.375	0.563	2065	1/4-28	150
SC-26	1.625	2.750	0.625	3065	5/16-24	260
SC-27	1.688	2.750	0.625	3090	5/16-24	260
SC-28	1.750	2.750	0.625	3110	5/16-24	260
SC-29	1.813	2.875	0.625	3135	5/16-24	260
SC-30	1.875	2.875	0.625	3155	5/16-24	260
SC-31	1.938	3.000	0.625	3175	5/16-24	260
SC-32	2.000	3.000	0.625	3200	5/16-24	260
SC-33	2.063	3.250	0.750	3485	5/16-24	260
SC-34	2.125	3.250	0.750	3505	5/16-24	260
SC-35	2.188	3.250	0.750	3530	5/16-24	260
SC-36	2.250	3.250	0.750	3555	5/16-24	260

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G5

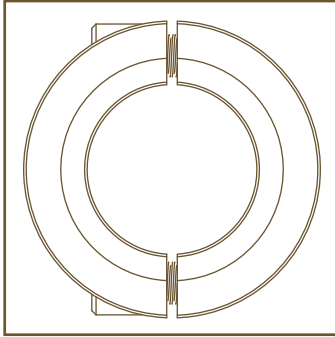
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TWO-PIECE COLLAR - SC SERIES - INCH

Mechanical Self-Locking

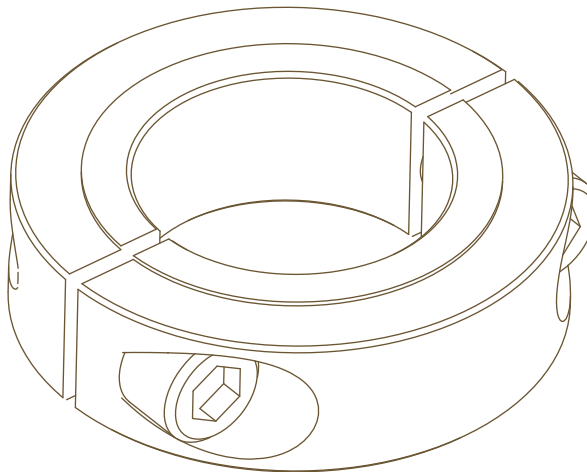
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Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Inches)	Socket Head Cap Screw	Suggested Torque (in-Lbs)
SC-37	2.313	3.500	0.750	3585	5/16-24	260
SC-38	2.375	3.500	0.750	3615	5/16-24	260
SC-39	2.438	3.750	0.875	5830	3/8-24	500
SC-40	2.500	3.750	0.875	5855	3/8-24	500
SC-41	2.563	4.000	0.875	5885	3/8-24	500
SC-42	2.625	4.000	0.875	5915	3/8-24	500
SC-43	2.688	4.000	0.875	5950	3/8-24	500
SC-44	2.750	4.000	0.875	5975	3/8-24	500
SC-45	2.813	4.250	0.875	6010	3/8-24	500
SC-46	2.875	4.250	0.875	6045	3/8-24	500
SC-47	2.938	4.250	0.875	6070	3/8-24	500
SC-48	3.000	4.250	0.875	6105	3/8-24	500
SC-50	3.125	4.500	0.875	6165	3/8-24	500
SC-52	3.250	4.500	0.875	6225	3/8-24	500
SC-54	3.375	4.750	0.875	6285	3/8-24	500
SC-56	3.500	4.750	0.875	6345	3/8-24	500
SC-58	3.625	5.000	0.875	6405	3/8-24	500
SC-60	3.750	5.000	0.875	6465	3/8-24	500
SC-62	3.875	5.250	0.875	6525	3/8-24	500
SC-64	4.000	5.250	0.875	6595	3/8-24	500

Whittet-Higgins Split Collars are manufactured in a multitude of sizes, materials and configurations to address our customers specific applications. If you cannot find the correct product, need further help selecting a product for a new application, or need one of the standard products modified for your specialized application, please contact one of our engineers at (401) 728-0700





TWO-PIECE COLLAR - SC SERIES - STAINLESS

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Corrosion resistant stainless steel
- Assembles onto shaft without removing other existing power transmission components
- More secure locking than set screw collars
- Infinite axial adjustment and securing of bearings and other power transmission components
- Prevents assemblies from loosening due to vibration, shock and torque
- Eliminates the need for cutting or repairing shaft keyway
- Effective on both soft and hardened shafts
- Manufactured in USA and RoHS compliant

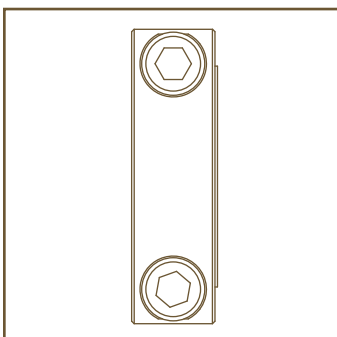
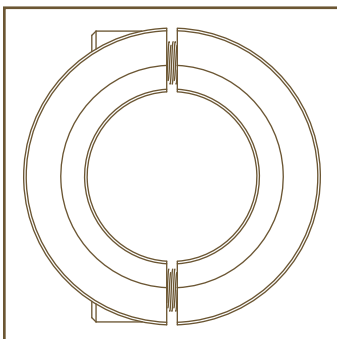
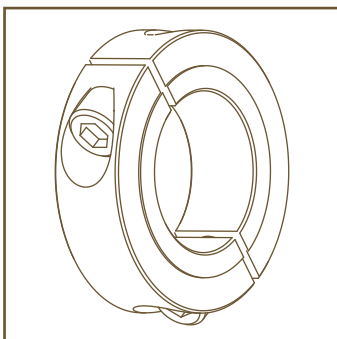
Applications:

- Corrosive environments
- Lower speed assemblies and equipment
- Non-balanced assemblies
- Shaft stops and shoulders on linear actuators
- Food conveyor and roller assemblies

Max Operating Temperature: 300 Deg F

Materials:

Collar - Stainless Steel
Fastener - Stainless Steel



Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (In-Lbs)
SC-02S	0.125	0.625	0.281	120	4-40	10
SC-03S	0.188	0.625	0.281	125	4-40	10
SC-04S	0.250	0.625	0.281	135	4-40	10
SC-05S	0.313	0.688	0.281	140	4-40	10
SC-06S	0.375	0.875	0.344	225	6-32	18
SC-07S	0.438	0.938	0.344	230	6-32	18
SC-08S	0.500	1.125	0.438	435	10-32	42
SC-09S	0.563	1.313	0.438	440	10-32	42
SC-10S	0.625	1.313	0.438	450	10-32	42
SC-11S	0.688	1.500	0.500	850	1/4-28	105
SC-12S	0.750	1.500	0.500	860	1/4-28	105
SC-13S	0.813	1.625	0.500	865	1/4-28	105
SC-14S	0.875	1.625	0.500	880	1/4-28	105
SC-15S	0.938	1.750	0.500	890	1/4-28	105
SC-16S	1.000	1.750	0.500	895	1/4-28	105
SC-17S	1.063	1.875	0.500	905	1/4-28	105
SC-18S	1.125	1.875	0.500	910	1/4-28	105
SC-19S	1.188	2.063	0.500	920	1/4-28	105
SC-20S	1.250	2.063	0.500	930	1/4-28	105
SC-21S	1.313	2.250	0.563	995	1/4-28	105
SC-22S	1.375	2.250	0.563	1005	1/4-28	105
SC-23S	1.438	2.375	0.563	1010	1/4-28	105
SC-24S	1.500	2.375	0.563	1020	1/4-28	105
SC-25S	1.563	2.375	0.563	1030	1/4-28	105
SC-26S	1.625	2.750	0.625	1535	5/16-24	182
SC-27S	1.688	2.750	0.625	1545	5/16-24	182
SC-28S	1.750	2.750	0.625	1555	5/16-24	182
SC-29S	1.813	2.875	0.625	1565	5/16-24	182
SC-30S	1.875	2.875	0.625	1575	5/16-24	182
SC-31S	1.938	3.000	0.625	1590	5/16-24	182
SC-32S	2.000	3.000	0.625	1600	5/16-24	182
SC-33S	2.063	3.250	0.750	1740	5/16-24	182
SC-34S	2.125	3.250	0.750	1755	5/16-24	182
SC-35S	2.188	3.250	0.750	1765	5/16-24	182
SC-36S	2.250	3.250	0.750	1775	5/16-24	182

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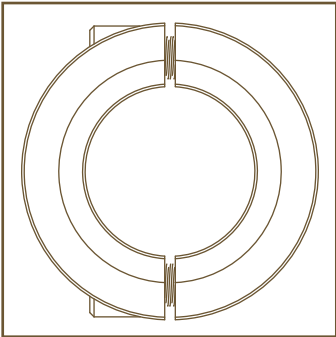
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G6

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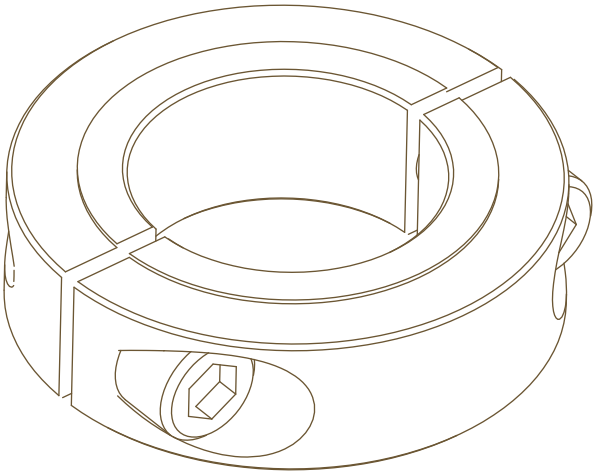
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Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Inches)	Socket Head Cap Screw	Suggested Torque (in-Lbs)
SC-37S	2.313	3.500	0.750	1790	5/16-24	182
SC-38S	2.375	3.500	0.750	1810	5/16-24	182
SC-39S	2.438	3.750	0.875	2915	3/8-24	350
SC-40S	2.500	3.750	0.875	2925	3/8-24	350
SC-41S	2.563	4.000	0.875	2940	3/8-24	350
SC-42S	2.625	4.000	0.875	2955	3/8-24	350
SC-43S	2.688	4.000	0.875	2975	3/8-24	350
SC-44S	2.750	4.000	0.875	2985	3/8-24	350
SC-45S	2.813	4.250	0.875	3000	3/8-24	350
SC-46S	2.875	4.250	0.875	3020	3/8-24	350
SC-47S	2.938	4.250	0.875	3035	3/8-24	350
SC-48S	3.000	4.250	0.875	3050	3/8-24	350

Whittet-Higgins Split Collars are manufactured in a multitude of sizes, materials and configurations to address our customers specific applications. If you cannot find the correct product, need further help selecting a product for a new application, or need one of the standard products modified for your specialized application, please contact one of our engineers at (401) 728-0700





TWO-PIECE COLLAR - SC SERIES - ALUMINUM

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- Lightweight aluminum alloy
- Assembles onto shaft without removing other existing power transmission components
- More secure locking than set screw collars
- Infinite axial adjustment and securing of bearings and other power transmission components
- Prevents assemblies from loosening due to vibration, shock and torque
- Eliminates the need for cutting or repairing shaft keyway
- Effective on both soft and hardened shafts
- Manufactured in USA and RoHS compliant

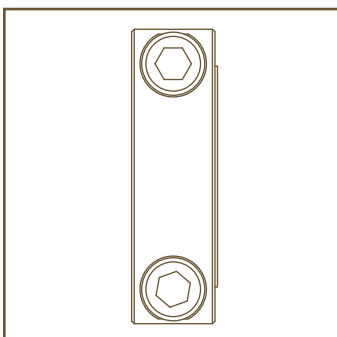
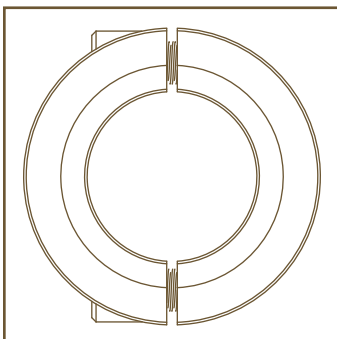
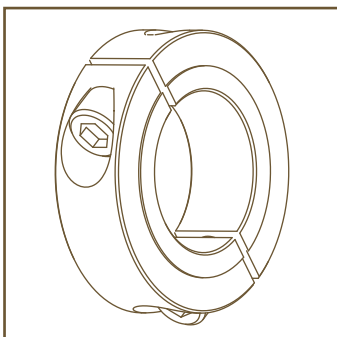
Applications:

- Corrosive environments
- Lower speed assemblies and equipment
- Non-balanced assemblies
- Shaft stops and shoulders on linear actuators
- Food conveyor and roller assemblies

Max Operating Temperature: 225 Deg F

Materials:

Collar - Aluminum Alloy
Fastener - Hardened Alloy



Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Lbs)	Socket Head Cap Screw	Suggested Torque (In-Lbs)
SC-02A	0.125	0.625	0.281	110	4-40	14
SC-03A	0.188	0.625	0.281	120	4-40	14
SC-04A	0.250	0.625	0.281	125	4-40	14
SC-05A	0.313	0.688	0.281	130	4-40	14
SC-06A	0.375	0.875	0.344	205	6-32	25
SC-07A	0.438	0.938	0.344	220	6-32	25
SC-08A	0.500	1.125	0.438	405	10-32	60
SC-09A	0.563	1.313	0.438	410	10-32	60
SC-10A	0.625	1.313	0.438	415	10-32	60
SC-11A	0.688	1.500	0.500	800	1/4-28	150
SC-12A	0.750	1.500	0.500	805	1/4-28	150
SC-13A	0.813	1.625	0.500	820	1/4-28	150
SC-14A	0.875	1.625	0.500	825	1/4-28	150
SC-15A	0.938	1.750	0.500	835	1/4-28	150
SC-16A	1.000	1.750	0.500	840	1/4-28	150
SC-17A	1.063	1.875	0.500	850	1/4-28	150
SC-18A	1.125	1.875	0.500	855	1/4-28	150
SC-19A	1.188	2.063	0.500	865	1/4-28	150
SC-20A	1.250	2.063	0.500	875	1/4-28	150
SC-21A	1.313	2.250	0.563	935	1/4-28	150
SC-22A	1.375	2.250	0.563	945	1/4-28	150
SC-23A	1.438	2.375	0.563	950	1/4-28	150
SC-24A	1.500	2.375	0.563	960	1/4-28	150
SC-25A	1.563	2.375	0.563	965	1/4-28	150
SC-26A	1.625	2.750	0.625	1440	5/16-24	260
SC-27A	1.688	2.750	0.625	1450	5/16-24	260
SC-28A	1.750	2.750	0.625	1460	5/16-24	260
SC-29A	1.813	2.875	0.625	1470	5/16-24	260
SC-30A	1.875	2.875	0.625	1480	5/16-24	260
SC-31A	1.938	3.000	0.625	1490	5/16-24	260
SC-32A	2.000	3.000	0.625	1500	5/16-24	260
SC-33A	2.063	3.250	0.750	1635	5/16-24	260
SC-34A	2.125	3.250	0.750	1645	5/16-24	260
SC-35A	2.188	3.250	0.750	1655	5/16-24	260
SC-36A	2.250	3.250	0.750	1670	5/16-24	260

(Table Continued on Next Page)

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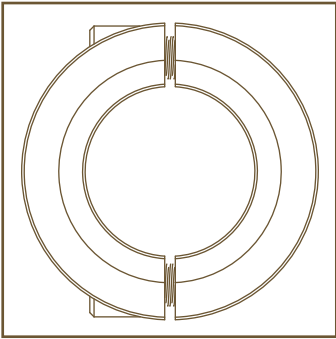
Engineering & Sales Support: (401) 728-0700



TWO-PIECE COLLAR - SC SERIES - ALUMINUM

Mechanical Self-Locking

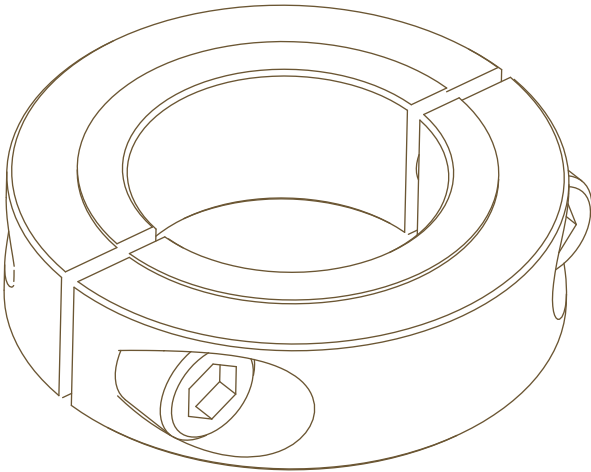
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Part Number	Bore (Inches)	Max. Outside Diameter (Inches)	Max. Width (Inches)	Theoretical Axial Max. (Inches)	Socket Head Cap Screw	Suggested Torque (in-Lbs)
SC-37A	2.313	3.500	0.750	1680	5/16-24	260
SC-38A	2.375	3.500	0.750	1700	5/16-24	260
SC-39A	2.438	3.750	0.875	2735	3/8-24	500
SC-40A	2.500	3.750	0.875	2750	3/8-24	500
SC-41A	2.563	4.000	0.875	2765	3/8-24	500
SC-42A	2.625	4.000	0.875	2775	3/8-24	500
SC-43A	2.688	4.000	0.875	2790	3/8-24	500
SC-44A	2.750	4.000	0.875	2805	3/8-24	500
SC-45A	2.813	4.250	0.875	2820	3/8-24	500
SC-46A	2.875	4.250	0.875	2835	3/8-24	500
SC-47A	2.938	4.250	0.875	2845	3/8-24	500
SC-48A	3.000	4.250	0.875	2865	3/8-24	500

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ONE-PIECE COLLAR - CCM SERIES - METRIC

Mechanical Self-Locking

Benefits & Characteristics:

- Self-locking
- More secure locking than set screw collars
- Infinite axial adjustment and securing of bearings and other power transmission components
- Prevents assemblies from loosening due to vibration, shock and torque
- Eliminates the need for cutting or repairing shaft keyway
- Black oxide coating with wax finish to prevent corrosion
- Effective on both soft and hardened shafts
- Manufactured in USA and RoHS compliant

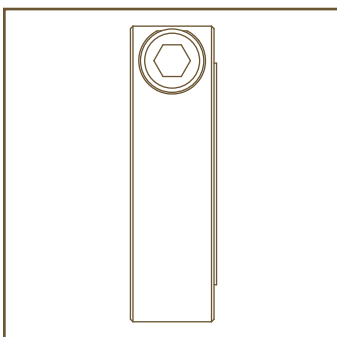
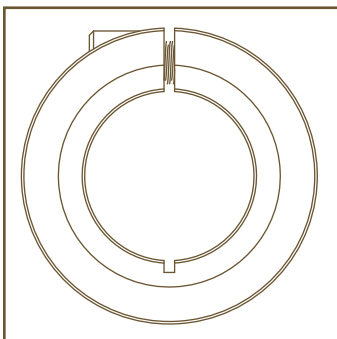
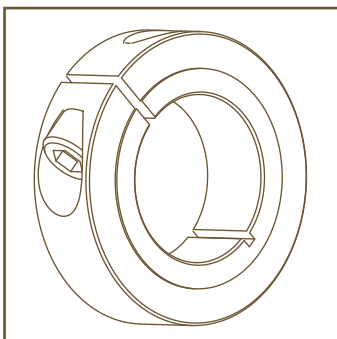
Applications:

- Lower speed assemblies and equipment
- Non-balanced assemblies
- Shaft stops and shoulders on linear actuators
- Conveyor and roller assemblies
- Packaging equipment

Max Operating Temperature: 300 Deg F

Materials:

Collar - Carbon Steel
Fastener - Hardened Alloy



Part Number	Bore (mm)	Max. Outside Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)	Socket Head Cap Screw	Suggested Torque (N-m)
CCM-003	3.0	15.9	8.1	1.0	M3	1.9
CCM-004	4.0	15.9	8.1	1.0	M3	1.9
CCM-005	5.0	15.9	8.1	1.0	M3	1.9
CCM-006	6.0	18.0	8.1	1.1	M3	1.9
CCM-007	7.0	18.0	8.1	1.1	M3	1.9
CCM-008	8.0	18.0	8.1	1.1	M3	1.9
CCM-009	9.0	22.2	9.0	1.2	M3	1.9
CCM-010	10.0	22.2	9.0	1.2	M3	1.9
CCM-011	11.0	28.6	11.3	1.8	M4	2.7
CCM-012	12.0	28.6	11.3	1.9	M4	2.7
CCM-013	13.0	28.6	11.3	1.9	M4	2.7
CCM-014	14.0	33.3	13.1	3.6	M5	5.6
CCM-015	15.0	33.3	13.1	3.6	M5	5.6
CCM-016	16.0	33.3	13.1	3.7	M5	5.6
CCM-017	17.0	38.1	14.1	7.1	M6	10.1
CCM-018	18.0	38.1	14.1	7.2	M6	10.1
CCM-019	19.0	41.3	14.1	7.2	M6	10.1
CCM-020	20.0	41.3	14.1	7.2	M6	10.1
CCM-021	21.0	41.3	14.1	7.3	M6	10.1
CCM-022	22.0	41.3	14.1	7.3	M6	10.1
CCM-023	23.0	44.5	14.1	7.4	M6	10.1
CCM-024	24.0	44.5	14.1	7.4	M6	10.1
CCM-025	25.0	47.6	14.1	7.5	M6	10.1
CCM-026	26.0	47.6	14.1	7.5	M6	10.1
CCM-027	27.0	52.4	15.1	7.7	M6	10.1
CCM-028	28.0	52.4	15.1	7.8	M6	10.1
CCM-029	29.0	52.4	15.1	7.8	M6	10.1
CCM-030	30.0	52.4	15.1	7.9	M6	10.1
CCM-031	31.0	57.2	15.1	7.9	M6	10.1
CCM-032	32.0	57.2	15.1	8.0	M6	10.1
CCM-033	33.0	57.2	15.1	8.1	M6	10.1
CCM-034	34.0	57.2	15.1	8.1	M6	10.1
CCM-035	35.0	60.3	15.1	8.2	M6	10.1
CCM-036	36.0	60.3	15.1	8.2	M6	10.1
CCM-037	37.0	60.3	15.1	8.3	M6	10.1

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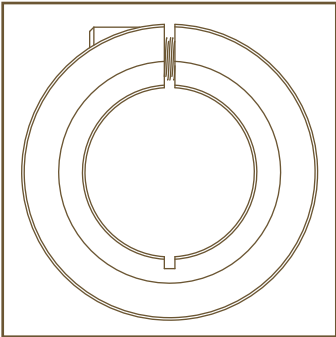
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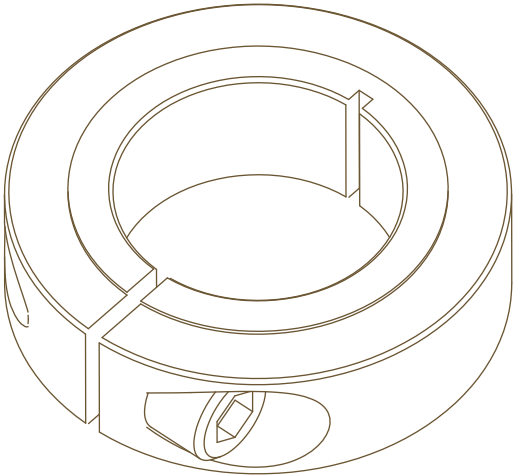
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Part Number	Bore (mm)	Max. Outside Diameter (mm)	Max. Width (mm)	Theoretical Axial Max. (kN)	Socket Head Cap Screw	Suggested Torque (N-m)
CCM-038	38.0	60.3	47.0	8.3	M6	10.1
CCM-039	39.0	63.5	50.8	8.4	M6	10.1
CCM-040	40.0	63.5	50.8	8.4	M6	10.1
CCM-041	41.0	63.5	50.8	8.5	M6	10.1
CCM-042	42.0	63.5	50.8	8.5	M6	10.1
CCM-045	45.0	73.0	59.9	13.0	M8	29.4
CCM-050	50.0	76.2	63.0	13.1	M8	29.4
CCM-055	55.0	82.6	69.0	13.1	M8	29.4
CCM-060	60.0	88.9	75.9	13.2	M8	29.4
CCM-065	65.0	95.3	82.0	13.2	M8	29.4
CCM-070	70.0	101.6	88.0	13.3	M8	29.4
CCM-075	75.0	108.0	90.4	13.4	M8	29.4
CCM-080	80.0	114.3	97.5	13.4	M8	29.4
CCM-085	85.0	120.7	102.4	13.5	M8	29.4
CCM-090	90.0	123.7	108.7	13.5	M8	29.4
CCM-095	95.0	134.9	115.8	23.5	M10	56.5
CCM-100	100.0	139.7	122.2	23.5	M10	56.5

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An Introduction to Installation & Repair Tools

In addition to manufacturing the finest bearing and mechanical power transmission retaining devices, Whittet-Higgins Company manufactures and markets installation, removal and repair tools for bearings, other power transmission components, retaining devices, shafts and spindles.

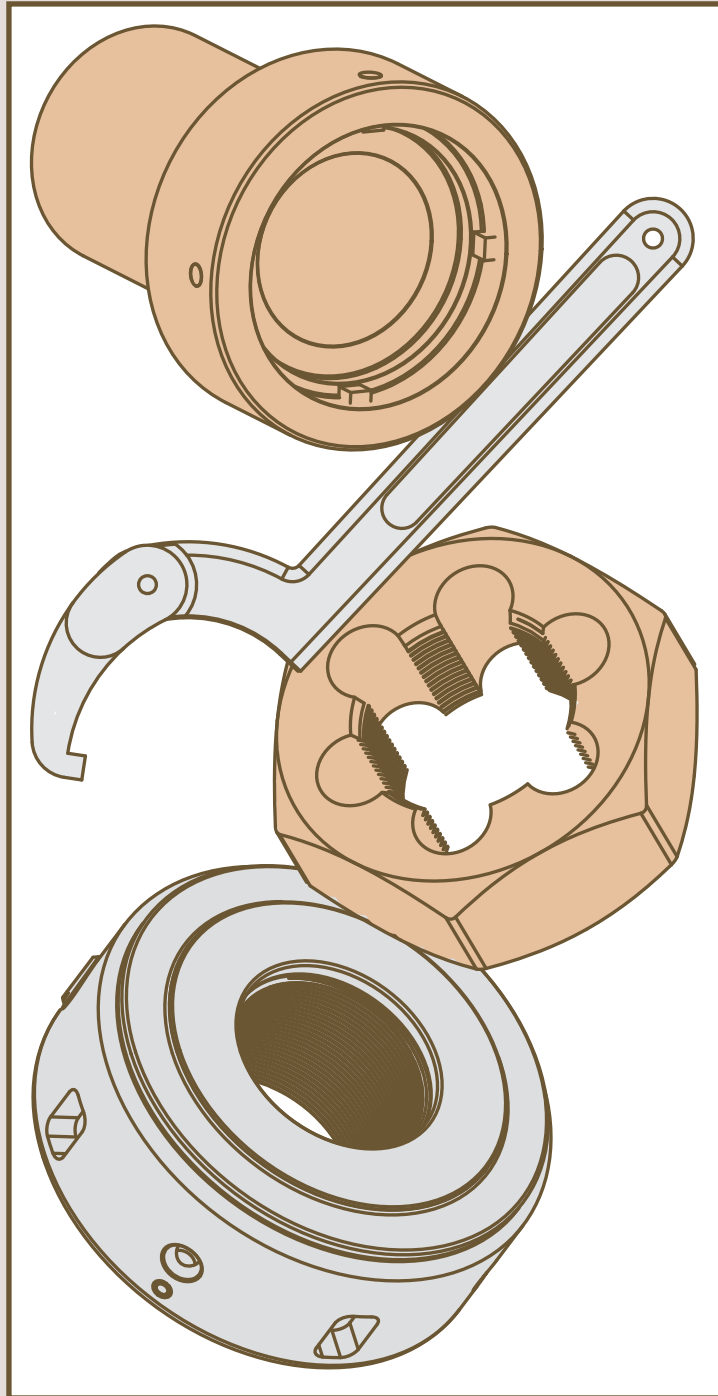
Whittet-Higgins' tools are manufactured to the highest quality standards, allowing technicians to recondition shafts and spindles, preload bearings to exacting manufacturers' specifications, and assemble bearing and power transmission assemblies more efficiently and with greater safety and accuracy.

Bearing Assembly Sockets originated with Whittet-Higgins to resolve complaints by customers. They are engineered to provide safe and efficient tightening and loosening of bearing retaining devices and the accurate preloading of tapered roller and angular contact bearings. These sockets are manufactured in both standard and metric sizes of standard length and many special lengths.

Adjustable Hook Spanner Wrenches are designed, engineered and manufactured of hot forged steel for rotating and securing of bearing locknuts where access tangent to the spindle is available. These cost efficient tools are adjustable in that they are able to be used for more than one size of nut, fitting around part of the circumference of the nut to allow rotation.

Bearing Rethreading Dies originated with Whittet-Higgins to clean anaerobic compounds from bearing threads and to repair light to moderately deformed shaft threads. Whittet-Higgins' Rethreading Dies are manufactured in both standard and metric sizes.

Hydraulically Actuated Installation Nuts are engineered and manufactured for the safe, easy and precision installation and preloading of taper roller and angular contact bearings on tapered shafts, withdrawal sleeves and adapters.





Benefits & Characteristics:

- For use with N/AN, NL, NS, PN, PL, BH, BHL, BHM, BHS, and BHT Series
- Socket encapsulates outside diameter of bearing locknut eliminating slipping and injuries
- Provides user with more accurate adjusting and preloading of bearings and other power transmission components
- Exerts force on four (4) spanner slots at all times
- Eliminates installation damage to locknut, bearing, and assembly
- Square drive connects to standard ratchets, torque wrenches, and pneumatic drivers
- Manufactured in USA and RoHS Compliant

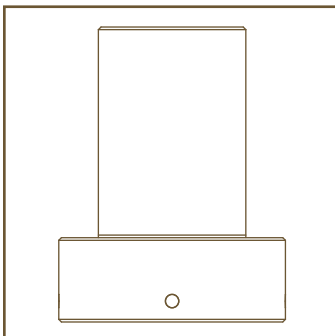
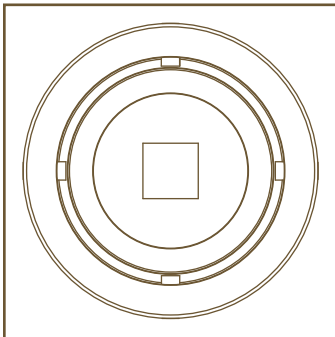
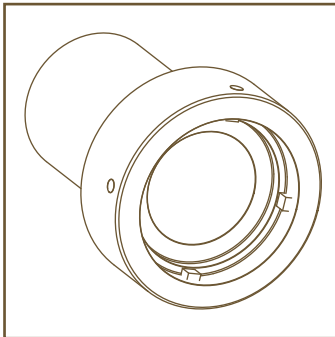
Applications:

- Gear box assembling
- Compressor assembling
- Packaging equipment assembling
- Pump assembling
- Bearing roller assembling

Max Operating Temperature: 300 Deg F

Materials:

Base Socket - Carbon Steel
Pins - Hardened Tool Steel



Part Number	Max. Outside Diameter (Inches)	Min. Socket Inside Diameter (Inches)	Min. Shaft Length Clearance (Inches)	Square Drive (Inches)
BAS-00	1.125	0.515	2.125	0.375
BAS-01	1.250	0.515	2.125	0.375
BAS-02	1.375	0.594	2.125	0.375
BAS-03	1.500	0.672	2.063	0.375
BAS-04	1.813	0.781	2.063	0.375
BAS-05	2.000	0.984	2.063	0.375
BAS-06	2.375	1.188	2.250	0.500
BAS-065	2.688	1.391	2.250	0.500
BAS-07	2.688	1.391	2.250	0.500
BAS-08	2.875	1.578	2.250	0.500
BAS-09	3.188	1.781	2.250	0.500
BAS-10	3.375	1.984	2.625	0.500
BAS-11	3.625	2.172	2.625	0.500
BAS-12	3.813	2.375	2.625	0.500
BAS-13	4.000	2.562	2.625	0.500
BAS-14	4.250	2.766	2.625	0.500
BAS-15	4.500	2.938	3.125	0.750
BAS-16	4.750	3.156	3.125	0.750
BAS-17	5.031	3.344	3.125	0.750
BAS-18	5.281	3.531	3.125	0.750
BAS-19	5.563	3.750	3.125	0.750
BAS-20	5.813	3.938	3.125	0.750
BAS-21	6.125	4.141	3.125	0.750
BAS-22	6.375	4.344	3.125	0.750
BAS-24	6.750	4.734	3.125	0.750
BAS-26	7.750	5.125	3.125	0.750

Whittet-Higgins assembly sockets are available in multitude of sizes to address our customers specific applications. If you cannot find the correct product, need further help selecting the correct product, or need a custom size that you cannot find above for your application, please contact one of our engineers at (401) 728-0700.



Benefits & Characteristics:

- For use with KM, KML, KMM, KMS, BM, BML, BMM, BMS & BMT Series
- Socket encapsulates outside diameter of bearing locknut eliminating slipping and injuries
- Provides user with more accurate adjusting and preloading of bearings and other power transmission components
- Exerts force on four (4) spanner slots at all times
- Eliminates installation damage to locknut, bearing, and assembly
- Square drive connects to standard ratchets, torque wrenches, and pneumatic drivers
- Manufactured in USA and RoHS Compliant

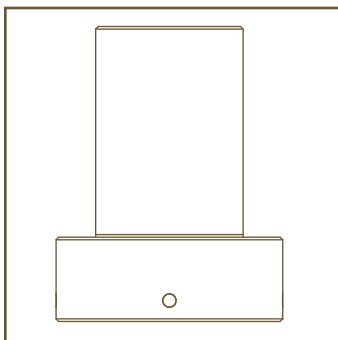
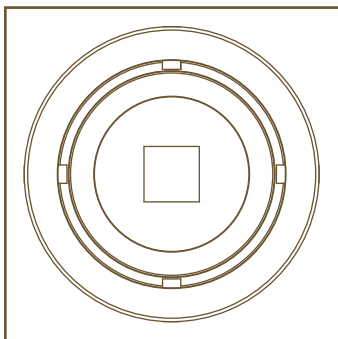
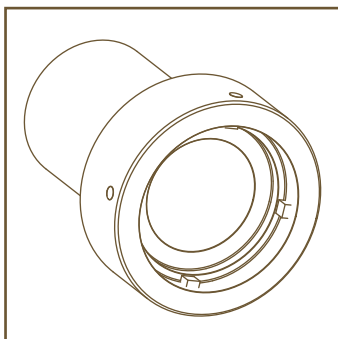
Applications:

- Gear box assembling
- Compressor assembling
- Packaging equipment assembling
- Pump assembling
- Bearing roller assembling

Max Operating Temperature: 300 Deg F

Materials:

Base Socket - Carbon Steel
Pins - Hardened Tool Steel



Part Number	Max. Outside Diameter (mm)	Min. Socket Inside Diameter (mm)	Min. Shaft Length Clearance (mm)	Square Drive (Inches)
BASM-00	28.5	13.0	54.0	0.375
BASM-01	32.0	13.0	54.0	0.375
BASM-02	35.0	15.0	54.0	0.375
BASM-03	38.0	17.0	54.0	0.375
BASM-04	42.0	20.0	52.0	0.375
BASM-044	44.0	22.0	52.0	0.375
BASM-05	49.5	25.0	52.0	0.375
BASM-056	53.5	28.0	57.0	0.500
BASM-06	57.0	30.0	57.0	0.500
BASM-064	60.0	32.0	57.0	0.500
BASM-07	64.0	35.0	57.0	0.500
BASM-08	74.0	40.0	57.0	0.500
BASM-09	81.0	45.0	57.0	0.500
BASM-10	86.0	50.0	65.0	0.500
BASM-11	91.0	55.0	65.0	0.500
BASM-12	96.0	60.0	65.0	0.500
BASM-13	101.0	65.0	65.0	0.500
BASM-14	108.0	70.0	65.0	0.500
BASM-15	114.0	75.0	81.0	0.750
BASM-16	121.0	80.0	81.0	0.750
BASM-17	126.0	85.0	81.0	0.750
BASM-18	139.5	90.0	81.0	0.750
BASM-19	144.5	95.0	81.0	0.750
BASM-20	149.5	100.0	81.0	0.750
BASM-21	159.5	105.0	104.0	0.750
BASM-22	164.5	110.0	104.0	0.750
BASM-24	174.5	120.0	104.0	0.750
BASM-26	184.5	130.0	104.0	0.750

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whittet-higgins company

HOOK SPANNER WRENCH - PAS SERIES

Installation Tool

Benefits & Characteristics:

- Allows user to adjust and lock slotted spanner nuts when tangent access to assembly is available
- High-strength forged handle and hook for rugged use
- Adjusts in size to install and remove variety of sizes of spanner locknuts
- Safer than one-piece non-adjustable spanner wrenches
- Prevents damage to locknut and assembly
- Most cost efficient spanner nut installation tool available
- Manufactured in USA and RoHS compliant

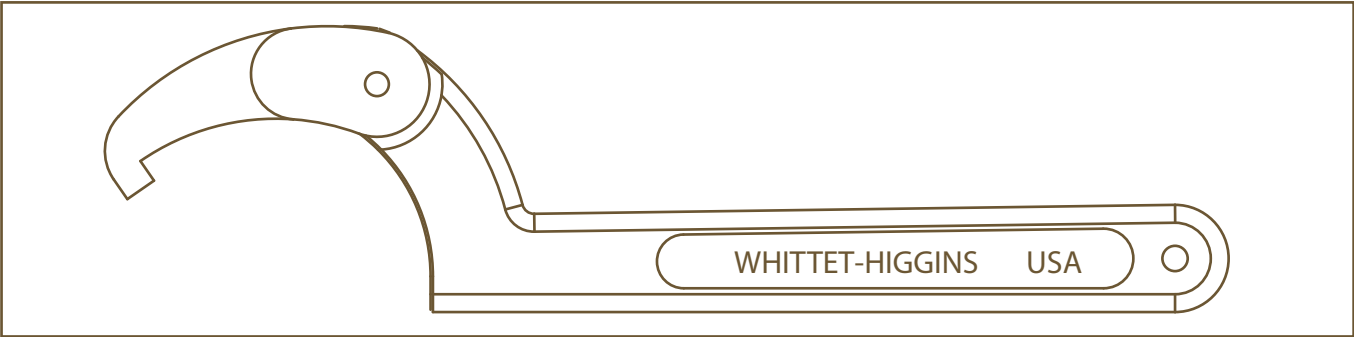
Applications:

- Gear box assembling
- Compressor assembling
- Packaging equipment assembling
- Pump assembling
- Bearing roller assembling

Max Operating Temperature: 300 Deg F

Materials:

Hook and Handle - Hot Forged Alloy



Part Number	Min. Spanner Slot Width Required (Inches)	Diameter Range Tool Functions on (Inches)	Used with ANSI/ABMA 8.2-1999 - N/AN Series Locknuts	Used with ISO 2982-2 KM Series Locknuts
PAS-00-02	0.105	0.750 - 1.000	N-00 thru N-02	KM 0 thru KM 2
PAS-02-06	0.115	1.000 - 1.750	N-02 thru N-06	KM 2 thru KM 6
PAS-04-10	0.170	1.375 - 2.750	N-04 thru N-10	KM 5 thru KM 10
PAS-08-18	0.225	2.250 - 4.750	N-08 thru AN-18	KM 8 thru KM 18
PAS-18-24	0.345	4.250 - 6.000	AN-18 thru AN-24	KM 18 thru KM 26
PAS-24-34	0.485	5.750 - 8.500	AN-24 thru AN-34	KM 27 thru KM 34

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

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H3

Engineering & Sales Support: (401) 728-0700



RETHREADING DIE - RTD SERIES - INCH

Threaded Shaft Repair Tool

Benefits & Characteristics:

- Ground threads for precision cleaning and shaft thread repair
- Efficiently and effectively remove old anaerobic locking compounds and particulate from shaft threads
- Hexagonal design for use with readily available shop wrenches (adjustable, chain, strap, etc)
- Repairs and reforms minor shaft thread deformations
- Conforms to thread specifications as delineated in ANSI / ABMA 8.2-1999
- Manufactured in USA and RoHS Compliant

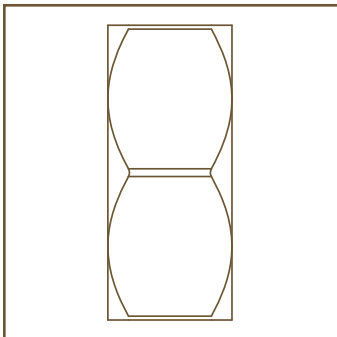
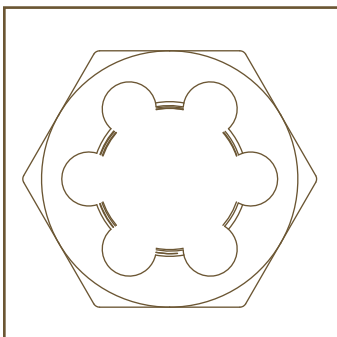
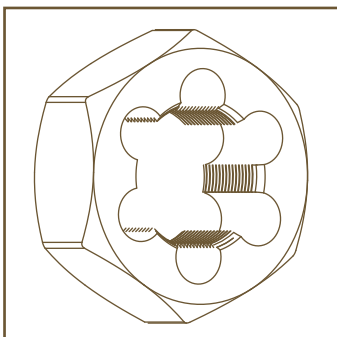
Applications:

- Gear box rebuild and repair
- Compressor rebuild and repair
- Packaging equipment repair
- Pump rebuilding
- Spindle rebuild and repair

Max Operating Temperature: 300 Deg F

Materials:

Die - Case Hardened Carbon Steel



Part Number	Thread	Dimension Across Hexagon Flats (Inches)	Dimension Across Hexagon Points (Inches)	Thickness (Inches)
RTD-00	0.391-32	1.062	1.226	0.500
RTD-01	0.469-32	1.062	1.226	0.500
RTD-02	0.586-32	1.375	1.588	0.625
RTD-03	0.664-32	1.375	1.588	0.625
RTD-04	0.781-32	1.750	2.021	0.750
RTD-05	0.969-32	1.750	2.021	0.750
RTD-06	1.173-18	2.375	2.742	1.000
RTD-065	1.312-18	2.375	2.742	1.000
RTD-07	1.376-18	2.375	2.742	1.000
RTD-08	1.563-18	3.250	3.753	1.250
RTD-09	1.767-18	3.250	3.753	1.250
RTD-10	1.967-18	3.750	4.330	1.250
RTD-11	2.157-18	3.750	4.330	1.500
RTD-12	2.360-18	4.500	5.196	1.500
RTD-13	2.548-18	4.500	5.196	1.500
RTD-14	2.751-18	4.500	5.196	1.500
RTD-15	2.933-12	5.000	5.774	1.500
RTD-16	3.137-12	5.000	5.774	1.500
RTD-17	3.340-12	5.250	6.062	1.500
RTD-18	3.527-12	5.500	6.351	1.500
RTD-19	3.730-12	5.750	6.640	1.500
RTD-20	3.918-12	6.125	7.073	1.500
RTD-21	4.122-12	6.250	7.217	1.500
RTD-22	4.325-12	6.500	7.506	1.500
RTD-24	4.716-12	7.250	8.372	1.500

Whittet-Higgins rethreading dies are available in multitude of sizes to address our customers specific applications. If you cannot find the correct product, need further help selecting the correct product, or need a custom size that you cannot find above for your application, please contact one of our engineers at (401) 728-0700.

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

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at www.whittet-higgins.com



Engineering & Sales Support: (401) 728-0700



Benefits & Characteristics:

- Ground threads for precision cleaning and shaft thread repair
- Efficiently and effectively remove old anaerobic locking compounds and particulate from shaft threads
- Hexagonal design for use with readily available shop wrenches (adjustable, chain, strap, etc)
- Repairs and reforms minor shaft thread deformations
- Conforms to thread specifications as delineated in ISO-2982-2:2013 (E)
- Manufactured in USA and RoHS compliant

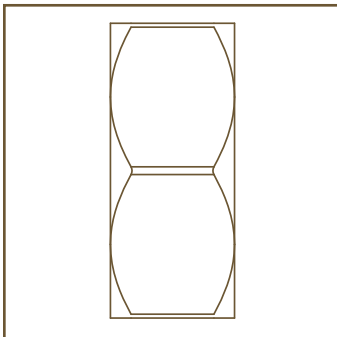
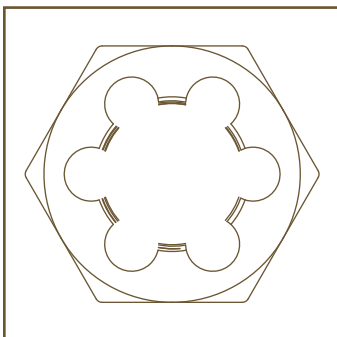
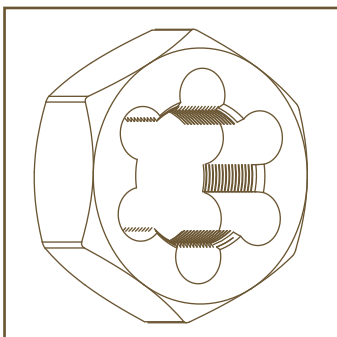
Applications:

- Gear box rebuild and repair
- Compressor rebuild and repair
- Packaging equipment repair
- Pump rebuilding
- Spindle rebuild and repair

Max Operating Temperature: 300 Deg F

Materials:

Die - Case Hardened Carbon Steel



Part Number	Thread	Dimension Across Hexagon Flats (mm)	Dimension Across Hexagon Points (mm)	Thickness (mm)
RTDM-00	M10 x 0.75	27.9	30.5	12.7
RTDM-01	M12 x 1.0	27.9	30.5	12.7
RTDM-02	M15 X 1.0	35.6	40.6	15.2
RTDM-03	M17 X 1.0	35.6	40.6	15.2
RTDM-04	M20 X 1.0	45.7	50.8	20.3
RTDM-05	M25 X 1.5	45.7	50.8	20.3
RTDM-06	M30 X 1.5	61.0	68.6	25.4
RTDM-064	M32 X 1.5	61.0	68.6	25.4
RTDM-07	M35 X 1.5	61.0	68.6	25.4
RTDM-08	M40 X 1.5	83.8	96.5	33.0
RTDM-09	M45 X 1.5	83.8	96.5	33.0
RTDM-10	M50 X 1.5	96.5	109.2	33.0
RTDM-11	M55 X 2.0	96.5	109.2	38.1
RTDM-12	M60 X 2.0	114.3	132.1	38.1
RTDM-13	M65 X 2.0	114.3	132.1	38.1
RTDM-14	M70 X 2.0	114.3	132.1	38.1
RTDM-15	M75 X 2.0	127.0	147.3	38.1
RTDM-16	M80 X 2.0	127.0	147.3	38.1
RTDM-17	M85 X 2.0	134.6	154.9	38.1
RTDM-18	M90 X 2.0	139.7	162.6	38.1
RTDM-19	M95 X 2.0	147.3	167.6	38.1
RTDM-20	M100 X 2.0	154.9	180.3	38.1
RTDM-21	M105 X 2.0	160.0	182.9	38.1
RTDM-22	M110 X 2.0	165.1	190.5	38.1
RTDM-24	M120X 2.0	185.4	213.4	38.1

Whittet-Higgins rethreading dies are available in multitude of sizes to address our customers specific applications. If you cannot find the correct product, need further help selecting the correct product, or need a custom size that you cannot find above for your application, please contact one of our engineers at (401) 728-0700.



INSTALLATION NUT - HYAN SERIES - INCH

Installation Tool

Benefits & Characteristics:

- Preloading of tapered and roller bearings
- Installation of couplings, gears, sheaves, and other compnents to threaded shafts
- Engineered to withstand 8,000 PSI hydraulic pressure
- 1/4" NPT hydraulic connections on rear face and outside diameter
- Two (2) integrated dial indicator positioning holes
- Integrated screw jacks for easy O-Ring replacment
- Spanner wrench grooves on outside diameter for installation
- Pin spanner holes on rear face and outside diameter for installation
- Nickel plated for corrosion resistance
- Manufactured in USA and RoHS compliant

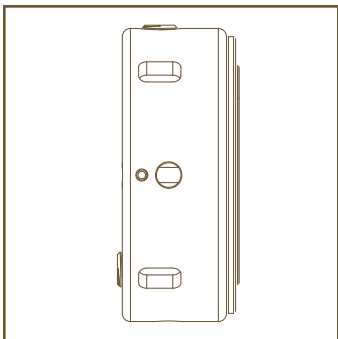
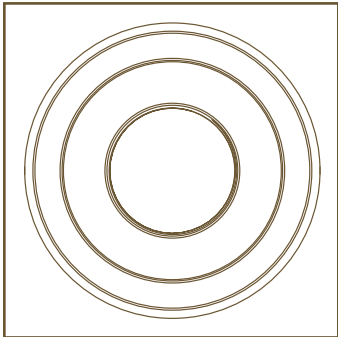
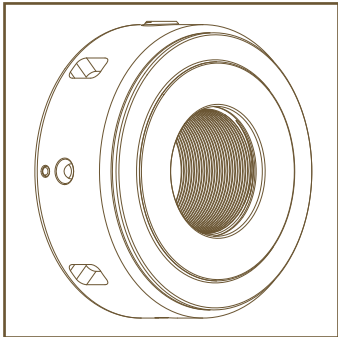
Applications:

- Taper bore roller bearing assembly
- Paper and steel mills roll assembly
- Compressor rotor assembly
- Right angle gear box assembly
- Power transmission shaft assemblies

Max Operating Temperature: 225 Deg F

Materials:

Base Threaded Nut - Alloy
Face Poston - Hardened Alloy
Fasteners - Hardened Alloy
O-Rings - Nitrile Rubber



Part Number	Thread	Max. Outside Diameter (Inches)	Max. Width (Inches)	Theoretical Max Force (Lbf)
HYAN-10	1.967-18	4.500	1.800	35396
HYAN-11	2.168-18	4.700	1.800	36871
HYAN-12	2.360-18	4.900	1.800	39823
HYAN-13	2.548-18	5.100	1.800	41299
HYAN-14	2.751-18	5.300	1.800	44250
HYAN-15	2.933-12	5.500	1.800	45726
HYAN-16	3.137-12	5.700	1.800	48678
HYAN-17	3.340-12	5.900	1.800	51629
HYAN-18	3.527-12	6.150	1.800	61003
HYAN-19	3.730.12	6.400	1.800	64347
HYAN-20	3.918-12	6.650	1.800	67691
HYAN-21	4.122-12	6.850	1.800	69363
HYAN-22	4.325-12	7.100	1.800	72707
HYAN-24	4.716-12	7.500	1.800	79396
HYAN-26	5.106-12	7.800	1.800	82740

For installation instructions, warranty information, thread specifications and disclaimer information please visit us at www.whittet-higgins.com

Downloadable 3D & 2D CAD models available
at www.whittet-higgins.com

H6

Engineering & Sales Support: (401) 728-0700



Benefits & Characteristics:

- Preloading of tapered and roller bearings
- Installation of couplings, gears, sheaves, and other compnents to threaded shafts
- Engineered to withstand 8,000 PSI hydraulic pressure
- 1/4" NPT hydraulic connections on rear face and outside diameter
- Two (2) integrated dial indicator positioning holes
- Integrated screw jacks for easy O-Ring replacment
- Spanner wrench grooves on outside diameter for installation
- Pin spanner holes on rear face and outside diameter for installation
- Nickel plated for corrosion resistance
- Manufactured in USA and RoHS compliant

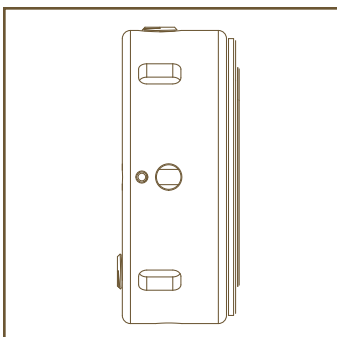
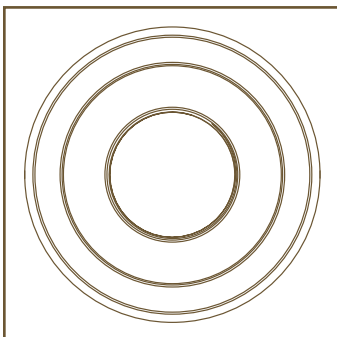
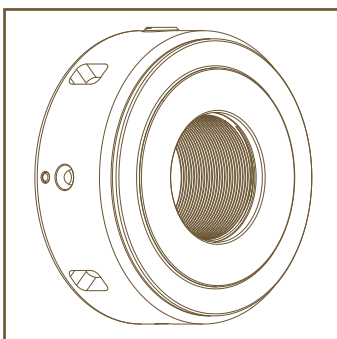
Applications:

- Taper bore roller bearing assembly
- Paper and steel mills roll assembly
- Compressor rotor assembly
- Right angle gear box assembly
- Power transmission shaft assemblies

Max Operating Temperature: 225 Deg F

Materials:

Base Threaded Nut - Alloy
Face Poston - Hardened Alloy
Fasteners - Hardened Alloy
O-Rings - Nitrile Rubber



Part Number	Thread	Max. Outside Diameter (mm)	Max. Width (mm)	Theoretical Max Force (N)
HYKM-10	M50 X 1.5	115	45.8	157440
HYKM-11	M50 X 2.0	120	45.8	164004
HYKM-12	M55 X 2.0	125	45.8	177133
HYKM-13	M60 X 2.0	130	45.8	183697
HYKM-14	M65 X 2.0	135	45.8	196826
HYKM-15	M70 X 2.0	140	45.8	203390
HYKM-16	M75 X 2.0	145	45.8	216519
HYKM-17	M80 X 2.0	150	45.8	229648
HYKM-18	M85 X 2.0	157	45.8	271342
HYKM-19	M90 X 2.0	163	45.8	286216
HYKM-20	M95 X 2.0	169	45.8	301091
HYKM-21	M100 X 2.0	174	45.8	308528
HYKM-22	M110 X 2.0	181	45.8	323403
HYKM-24	M120 X 2.0	191	45.8	353152
HYKM-26	M130 X 2.0	199	45.8	368026



APPENDIX

Unified Special (UNS) External Class 3A Thread Specifications per ABMA 8.2-1999 / AMSE B1.1-2003

Thread Designation	Threads Per Inch	Major Diameter		Pitch Diameter		Minor Diameter Maximum (Inches)	For Locknut Size
		Maximum (Inches)	Minimum (Inches)	Maximum (Inches)	Minimum (Inches)		
0.391-32	32	0.3910	0.3856	0.3707	0.3681	0.3527	00
0.469-32	32	0.4690	0.4636	0.4487	0.4461	0.4307	01
0.586-32	32	0.5860	0.5806	0.5657	0.5627	0.5477	02
0.664-32	32	0.6640	0.6586	0.6437	0.6407	0.6257	03
0.781-32	32	0.7810	0.7756	0.7607	0.7573	0.7427	04
0.969-32	32	0.9690	0.9636	0.9487	0.9453	0.9307	05
1.173-18	18	1.1730	1.1648	1.1369	1.1329	1.1048	06
1.312-18	18	1.3120	1.3038	1.2764	1.2724	1.2438	065
1.376-18	18	1.3760	1.3678	1.3399	1.3359	1.3078	07
1.563-18	18	1.5630	1.5548	1.5269	1.5224	1.4948	08
1.767-18	18	1.7670	1.7588	1.7309	1.7264	1.6988	09
1.967-18	18	1.9670	1.9588	1.9309	1.9264	1.8988	10
2.157-18	18	2.1570	2.1488	2.1209	2.1158	2.0888	11
2.204-18	18	2.2040	2.1958	2.1679	2.1628	2.1358	RN10
2.360-18	18	2.3600	2.3518	2.3239	2.3188	2.2918	12
2.407-18	18	2.4070	2.3988	2.3709	2.3658	2.3388	RN11
2.548-18	18	2.5480	2.5398	2.5119	2.5068	2.4798	13
2.626-18	18	2.6260	2.6178	2.5899	2.5848	2.5578	RN12
2.751-18	18	2.7510	2.7428	2.7149	2.7098	2.6828	14
2.933-12	12	2.9330	2.9218	2.8789	2.8735	2.8308	15
3.137-12	12	3.1370	3.1258	3.0829	3.0770	3.0348	16
3.340-12	12	3.3400	3.3288	3.2859	3.2800	3.2378	17
3.527-12	12	3.5270	3.5158	3.4729	3.4655	3.4248	18
3.730-12	12	3.7300	3.7188	3.6759	3.6685	3.6278	19
3.918-12	12	3.9180	3.9068	3.8639	3.8565	3.8158	20
4.122-12	12	4.1220	4.1108	4.0679	4.0596	4.0198	21
4.325-12	12	4.3250	4.3138	4.2709	4.2626	4.2228	22
4.716-12	12	4.7160	4.7048	4.6619	4.6536	4.6138	24
4.778-12	12	4.7780	4.7668	4.7239	4.7156	4.6758	ANR22
5.106-12	12	5.1060	5.0948	5.0519	5.0436	5.0038	26
5.185-12	12	5.1850	5.1738	5.1309	5.1226	5.0828	ANR24
5.497-12	12	5.4970	5.4858	5.4429	5.4346	5.3948	28
5.622-12	12	5.6220	5.6108	5.5679	5.5596	5.5198	ARN26
5.888-12	12	5.8880	5.8768	5.8339	5.8256	5.7858	30
6.097-8	8	6.0970	6.0818	6.0158	6.0067	5.9436	RN28
6.284-8	8	6.2840	6.2688	6.2028	6.1937	6.1306	32
6.503-8	8	6.5030	6.4878	6.4218	6.4127	6.3496	RN30
6.659-8	8	6.6590	6.6438	6.5778	6.5687	6.5056	34
6.925-8	8	6.9250	6.9098	6.8438	6.8347	6.7716	RN32
7.066-8	8	7.0660	7.0508	6.9848	6.9757	6.9126	36
7.331-8	8	7.3310	7.3158	7.2498	7.2407	7.1776	RN34
7.472-8	8	7.4720	7.4568	7.3908	7.3817	7.3186	38
7.753-8	8	7.7530	7.7378	7.6718	7.6627	7.5996	RN36
7.847-8	8	7.8470	7.8318	7.7658	7.7544	7.6936	40
8.191-8	8	8.1910	8.1758	8.1098	8.0977	8.0376	RN38
8.628-8	8	8.6280	8.6128	8.5468	8.5347	8.4746	44

(Table Continued on Next Page)



Unified Special (UNS) External Class 3A Thread Specifications - Continued from Previous Page

Thread Designation	Threads Per Inch	Major Diameter		Pitch Diameter		Minor Diameter Maximum (Inches)	For Locknut Size
		Maximum (Inches)	Minimum (Inches)	Maximum (Inches)	Minimum (Inches)		
9.442-6	6	9.4420	9.4218	9.3337	9.3213	9.2375	048
10.192-6	6	10.1920	10.1718	10.0837	10.0707	9.9875	052
11.004-6	6	11.0040	10.9838	10.8957	10.8827	10.7995	056
11.785-6	6	11.7850	11.7648	11.6767	11.6637	11.5805	060
11.973-6	6	11.9730	11.9528	11.8647	11.8517	11.7685	RN56
12.562-6	6	12.5620	12.5418	12.4537	12.4402	12.3575	064
12.942-6	6	12.9420	12.9218	12.8337	12.8202	12.7375	RN60
13.723-6	6	13.7230	13.7028	13.6147	13.6012	13.5185	RN64



APPENDIX

ACME Class 3G External Thread Specifications per ABMA 8.2-1999

Thread Designation	Threads Per Inch	Major Diameter		Pitch Diameter		Minor Diameter Maximum (Inches)	For Locknut Size
		Maximum (Inches)	Minimum (Inches)	Maximum (Inches)	Minimum (Inches)		
13.303-5	5	13.303	13.287	13.203	13.187	13.093	068
14.134-5	5	14.134	14.118	14.034	14.018	13.914	072
14.921-5	5	14.921	14.905	14.821	14.805	14.701	076
15.709-5	5	15.709	15.693	15.609	15.593	15.489	080
16.496-5	5	16.496	16.480	16.396	16.380	16.276	084
17.283-5	5	17.283	17.267	17.183	17.167	17.063	088

Note: These threads do not comply with the ASME 1.5-1997 ACME Screw Thread Standards



APPENDIX

Unified Fine (UNF) External Class 3A Thread Specifications per ASME B1.1-2003

Thread Designation	Threads Per Inch	Major Diameter		Pitch Diameter		Minor Diameter Maximum (Inches)	For Clampnut Series
		Maximum (Inches)	Minimum (Inches)	Maximum (Inches)	Minimum (Inches)		
10 - 32	32	0.1900	0.1840	0.1697	.1674	0.1528	CNC, SNC
1/4 - 28	28	0.2500	0.2435	0.2268	0.2243	0.2075	CNC, SNC
5/16 - 24	24	0.3125	0.3053	0.2854	0.2827	0.2629	CNC, SNC
3/8 - 24	24	0.3750	0.3678	0.3479	0.3450	0.3254	CNC, SNC
7/16 - 20	20	0.4375	0.4294	0.4050	0.4019	0.3780	CNC, SNC
1/2 - 20	20	0.5000	0.4919	0.4675	0.4643	0.4405	CNC, SNC
5/8 - 18	18	0.6250	0.6163	0.5889	0.5854	0.5588	CNC, SNC
3/4 - 16	16	0.7500	0.7406	0.7094	0.7056	0.6756	CNC, SNC
7/8 - 14	14	0.8750	0.8647	0.8286	0.8245	0.7899	CNC, SNC
1 - 14	14	1.0000	0.9897	0.9536	0.9494	0.9149	CNC, SNC
1 - 12	12	1.0000	0.9886	0.9459	0.9415	0.9008	CNC, SNC
1-1/8 - 12	12	1.1250	1.1136	1.0709	1.0664	1.0258	CNC, SNC
1-1/4 - 12	12	1.2500	1.2386	1.1959	1.1913	1.1508	CNC, SNC
1-3/8 - 12	12	1.3750	1.3636	1.3209	1.3162	1.2758	CNC, SNC
1-1/2 - 12	12	1.5000	1.4886	1.4459	1.4411	1.4008	CNC, SNC
2 - 12	12	2.0000	1.9886	1.9459	1.9414	1.9008	CNC, SNC



APPENDIX

Unified Coarse (UNC) External Class 3A Thread Specifications per ASME B1.1-2003

Thread Designation	Threads Per Inch	Major Diameter		Pitch Diameter		Minor Diameter Maximum (Inches)	For Clampnut Series
		Maximum (Inches)	Minimum (Inches)	Maximum (Inches)	Minimum (Inches)		
8 - 32	32	0.1640	0.1580	0.1437	0.1415	0.1268	CNC, SNC
10 - 24	24	0.1900	0.1828	0.1629	0.1604	0.1404	CNC, SNC
1/4 - 20	20	0.2500	0.2419	0.2175	0.2147	0.1905	CNC, SNC
5/16 - 18	18	0.3125	0.3038	0.2764	0.2734	0.2463	CNC, SNC
3/8 - 16	16	0.3750	0.3656	0.3344	0.3311	0.3006	CNC, SNC
7/16 - 14	14	0.4375	0.4272	0.3911	0.3876	0.3524	CNC, SNC
1/2 - 13	13	0.5000	0.4891	0.4500	0.4463	0.4084	CNC, SNC
5/8 - 11	11	0.6250	0.6129	0.5660	0.5619	0.5167	CNC, SNC
3/4 - 10	10	0.7500	0.7371	0.6850	0.6806	0.6309	CNC, SNC
7/8 - 9	9	0.8750	0.8611	0.8028	0.7981	0.7427	CNC, SNC
1 - 8	8	1.0000	0.9850	0.9188	0.9137	0.8512	CNC, SNC
1-1/8 - 7	7	1.1250	1.1086	1.0322	1.0268	0.9549	CNC, SNC
1-1/4 - 7	7	1.2500	1.2336	1.1572	1.1517	1.0799	CNC, SNC
1-3/8 - 6	6	1.3750	1.3568	1.2667	1.2607	1.1765	CNC, SNC
1-1/2 - 6	6	1.5000	1.4818	1.3917	1.3856	1.3015	CNC, SNC
1-3/4 - 5	5	1.7500	1.7295	1.6201	1.6134	1.5118	CNC, SNC
2 - 4-1/2	4-1/2	2.0000	1.9780	1.8557	1.8486	1.7354	CNC, SNC
2-1/4 - 4-1/2	4-1/2	2.2500	2.2280	2.1057	2.0984	1.9854	CNC, SNC
2-1/2 - 4	4	2.5000	2.4762	2.3376	2.3298	2.2023	CNC, SNC



APPENDIX

Unified 16 Threads Per Inch External Class 3A Thread Specifications per ASME B1.1-2003

Thread Designation	Threads Per Inch	Major Diameter		Pitch Diameter		Minor Diameter Maximum (Inches)	For Product Series
		Maximum (Inches)	Minimum (Inches)	Maximum (Inches)	Minimum (Inches)		
3/8 - 16	16	0.3750	0.3656	0.3344	0.3310	0.3006	CNS, SNS
7/16 - 16	16	0.4375	0.4281	0.3969	0.3934	0.3631	CNS, SNS
1/2 - 16	16	0.5000	0.4906	0.4594	0.4559	0.4256	CNS, SNS
9/16 - 16	16	0.5625	0.5531	0.5219	0.5184	0.4881	CNS, SNS
5/8 - 16	16	0.6250	0.6156	0.5844	0.5808	0.5506	CNS, SNS
3/4 - 16	16	0.7500	0.7406	0.7094	0.7056	0.6756	CNS, SNS, NI, BHI
7/8 - 16	16	0.8750	0.8656	0.8344	0.8307	0.8006	CNS, SNS, NI, BHI
1 - 16	16	1.0000	0.9906	0.9594	0.9557	0.9256	CNS, SNS, NI, BHI
1-1/8 - 16	16	1.1250	1.1156	1.0844	1.0806	1.0506	CNS, SNS, NI, BHI
1-1/4 - 16	16	1.2500	1.2406	1.2094	1.2056	1.1756	CNS, SNS, NI, BHI
1-3/8 - 16	16	1.3750	1.3656	1.3344	1.3305	1.3006	CNS, SNS, NI, BHI
1-1/2 - 16	16	1.5000	1.4906	1.4594	1.4555	1.4256	CNS, SNS, NI, BHI
1-5/8 - 16	16	1.6250	1.6156	1.5844	1.5805	1.5506	CNS, SNS, NI, BHI
1-3/4 - 16	16	1.7500	1.7406	1.7094	1.7054	1.6756	CNS, SNS, NI, BHI
1-7/8 - 16	16	1.8750	1.8656	1.8344	1.8304	1.8006	CNS, SNS, NI, BHI
2 - 16	16	2.0000	1.9906	1.9594	1.9554	1.9256	CNS, SNS, NI, BHI
2-1/4 - 16	16	2.2500	2.2406	2.2094	2.2053	2.1756	CNS, SNS, NI, BHI
2-1/2 - 16	16	2.5000	2.4906	2.4594	2.4553	2.4256	CNS, SNS, NI, BHI
2-3/4 - 16	16	2.7500	2.7406	2.7094	2.7052	2.6756	CNS, SNS, NI, BHI
3 - 16	16	3.0000	2.9906	2.9594	2.9552	2.9256	CNS, SNS



APPENDIX

Unified 11 Threads Per Inch External Class 3A Thread Specifications per ASME B1.1-2003

Thread Designation	Threads Per Inch	Major Diameter		Pitch Diameter		Minor Diameter Maximum (Inches)	For Product Series
		Maximum (Inches)	Minimum (Inches)	Maximum (Inches)	Minimum (Inches)		
2.9381 - 11	11	2.9381	2.9260	2.8791	2.8732	2.8298	NE-15
3.1421 - 11	11	3.1421	3.1300	3.0831	3.0771	3.0338	NE-16
3.3452 - 11	11	3.3452	3.3331	3.2862	3.2801	3.2369	NE-17
3.5322 - 11	11	3.5322	3.5201	3.4732	3.4671	3.4239	NE-18
3.7356 - 11	11	3.7356	3.7235	3.6766	3.6704	3.6273	NE-19
3.9232 - 11	11	3.9232	3.9111	3.8642	3.8579	3.8149	NE-20
4.1271 - 11	11	4.1271	4.1150	4.0681	4.0617	4.0188	NE-21
4.3303 - 11	11	4.3303	4.3182	4.2713	4.2648	4.2220	NE-22
4.7212 - 11	11	4.7212	4.7091	4.6622	4.6555	4.6129	NE-24
5.1110 - 11	11	5.1110	5.0989	5.0520	5.0452	5.0027	NE-26
5.5019 - 11	11	5.5019	5.4898	5.4429	5.4360	5.3936	NE-28
5.8933 - 11	11	5.8933	5.8812	5.8343	5.8272	5.7850	NE-30
6.2996 - 11	11	6.2996	6.2875	6.2406	6.2334	6.1913	NE-32
6.6897 - 11	11	6.6897	6.6776	6.6307	6.6233	6.5814	NE-34
7.0819 - 11	11	7.0819	7.0698	7.0229	7.0154	6.9736	NE-36
7.4720 - 11	11	7.4720	7.4599	7.4130	7.4054	7.3637	NE-38
7.8626 - 11	11	7.8626	7.8505	7.8036	7.7959	7.7543	NE-40



APPENDIX

Metric External Class 4h Thread Specifications per ISO-965/1-1980 (E)

Thread Designation	Thread Pitch	Major Diameter		Pitch Diameter		Minor Diameter Maximum (mm)	For Locknut Size
		Maximum (mm)	Minimum (mm)	Maximum (mm)	Minimum (mm)		
M10 X 0.75	0.75	10.000	9.910	9.513	9.450	9.169	00
M12 X 1.0	1.0	12.000	11.888	11.350	11.275	10.888	01
M15 X 1.0	1.0	15.000	14.888	14.350	14.275	13.888	02
M17 X 1.0	1.0	17.000	16.888	16.350	16.275	15.888	03
M20 X 1.0	1.0	20.000	19.888	19.350	19.275	18.888	04
M22 X 1.0	1.0	22.000	21.888	21.350	21.275	20.888	044
M25 X 1.5	1.5	25.000	24.850	24.026	23.930	23.323	05
M28 X 1.5	1.5	28.000	27.850	27.026	26.930	26.323	056
M30 X 1.5	1.5	30.000	29.850	29.026	28.930	28.323	06
M32 X 1.5	1.5	32.000	31.850	31.026	30.930	30.323	064
M35 X 1.5	1.5	35.000	34.850	34.026	33.930	33.323	07
M40 X 1.5	1.5	40.000	39.850	39.026	38.930	38.323	08
M45 X 1.5	1.5	45.000	44.850	44.026	43.930	43.323	09
M50 X 1.5	1.5	50.000	49.850	49.026	48.925	48.325	10
M55 X 2.0	2.0	55.000	54.820	53.701	53.589	52.756	11
M60 X 2.0	2.0	60.000	59.820	58.701	58.589	57.756	12
M65 X 2.0	2.0	65.000	64.820	63.701	63.589	62.756	13
M70 X 2.0	2.0	70.000	69.820	68.701	68.589	67.756	14
M75 X 2.0	2.0	75.000	74.820	73.701	73.589	72.756	15
M80 X 2.0	2.0	80.000	79.820	78.701	78.589	77.756	16
M85 X 2.0	2.0	85.000	84.820	83.701	83.589	82.756	17
M90 X 2.0	2.0	90.000	89.820	88.701	88.589	87.756	18
M95 X 2.0	2.0	95.000	94.820	93.701	93.583	92.759	19
M100 X 2.0	2.0	100.000	99.820	98.701	98.583	97.759	20
M105 X 2.0	2.0	105.000	104.820	103.701	103.583	102.759	21
M110 X 2.0	2.0	110.000	109.820	108.701	108.583	107.759	22
M115 X 2.0	2.0	115.000	114.820	113.701	113.583	112.759	23
M120 X 2.0	2.0	120.000	119.820	118.701	118.583	117.759	24
M125 X 2.0	2.0	125.000	124.820	123.701	123.583	122.759	25
M130 X 2.0	2.0	130.000	129.820	128.701	128.583	127.759	26
M135 X 2.0	2.0	135.000	134.820	133.701	133.583	132.759	27
M140 X 2.0	2.0	140.000	139.820	138.701	138.583	137.759	28
M145 X 2.0	2.0	145.000	144.820	143.701	143.583	142.759	29
M150 X 2.0	2.0	150.000	149.820	148.701	148.583	147.759	30
M155 X 3.0	3.0	155.000	154.764	153.051	152.911	151.616	31
M160 X 3.0	3.0	160.000	159.764	158.051	157.911	156.616	32
M165 X 3.0	3.0	165.000	164.764	163.051	162.911	161.616	33
M170 X 3.0	3.0	170.000	169.764	168.051	167.911	166.616	34
M180 X 3.0	3.0	180.000	179.764	178.051	177.911	176.616	36
M190 X 3.0	3.0	190.000	189.764	188.051	187.891	186.629	38
M200 X 3.0	3.0	200.000	199.764	198.051	197.891	196.629	40



APPENDIX

Metric Trapezoidal Threads per ISO 2901 & 2903 - Class 7C

Thread Designation	Thread Pitch (mm)	Major Diameter		Pitch Diameter		Minor Diameter Maximum (mm)	For Locknut Size
		Maximum (mm)	Minimum (mm)	Maximum (mm)	Minimum (mm)		
TR220	4	220.000	219.700	217.810	217.469	215.500	44
TR240	4	240.000	239.700	237.810	237.469	235.500	48
TR260	4	260.000	259.700	257.810	257.469	255.500	52
TR280	4	280.000	279.700	277.810	277.469	275.500	56
TR300	4	300.000	299.700	297.810	297.469	295.500	60
TR320	5	320.000	319.665	317.288	316.916	314.500	64
TR340	5	340.000	339.665	337.288	336.916	334.500	68
TR360	5	360.000	359.665	357.288	356.916	354.500	72



APPENDIX

Keyway Dimensions Required for W Series Lockwashers

For Lockwasher Size	Thread Designation	Keyway Width		Keyway Depth	
		Minimum (Inches)	Maximum (Inches)	Minimum (Inches)	Maximum (Inches)
00	0.391-32	0.125	0.141	0.063	0.079
01	0.469-32	0.125	0.141	0.063	0.079
02	0.586-32	0.125	0.141	0.078	0.094
03	0.664-32	0.125	0.141	0.078	0.094
04	0.781-32	0.188	0.204	0.078	0.094
05	0.969-32	0.188	0.204	0.094	0.110
06	1.173-18	0.188	0.204	0.094	0.110
065	1.312-18	0.188	0.204	0.125	0.141
07	1.376-18	0.188	0.204	0.094	0.110
08	1.563-18	0.313	0.329	0.094	0.110
09	1.767-18	0.313	0.329	0.094	0.110
10	1.967-18	0.313	0.329	0.094	0.110
11	2.157-18	0.313	0.329	0.125	0.141
12	2.360-18	0.313	0.329	0.125	0.141
13	2.548-18	0.313	0.329	0.125	0.141
14	2.751-18	0.313	0.329	0.125	0.141
15	2.933-12	0.313	0.329	0.125	0.141
16	3.137-12	0.375	0.391	0.125	0.141
17	3.340-12	0.375	0.391	0.125	0.141
18	3.527-12	0.375	0.391	0.156	0.172
19	3.730-12	0.375	0.391	0.156	0.172
20	3.918-12	0.375	0.391	0.156	0.172
21	4.122-12	0.375	0.391	0.156	0.172
22	4.325-12	0.375	0.391	0.188	0.204
24	4.716-12	0.375	0.391	0.188	0.204
26	5.106-12	0.500	0.516	0.188	0.204
28	5.497-12	0.625	0.641	0.188	0.204
30	5.888-12	0.625	0.641	0.219	0.235
32	6.284-8	0.625	0.641	0.234	0.250
34	6.659-8	0.750	0.766	0.234	0.250
36	7.066-8	0.750	0.766	0.234	0.250
38	7.472-8	0.750	0.766	0.234	0.250
40	7.847-8	0.875	0.891	0.234	0.250
44	8.628-8	1.063	1.079	0.375	0.391



APPENDIX

Keyway Dimensions Required for WH Series Lockwashers

For Lockwasher Size	Thread Designation	Keyway Width		Keyway Depth	
		Minimum (Inches)	Maximum (Inches)	Minimum (Inches)	Maximum (Inches)
00	0.391-32	0.125	0.141	0.094	0.110
01	0.469-32	0.125	0.141	0.094	0.110
02	0.586-32	0.125	0.141	0.094	0.110
03	0.664-32	0.125	0.141	0.094	0.110
04	0.781-32	0.188	0.204	0.094	0.110
05	0.969-32	0.188	0.204	0.125	0.141
06	1.173-18	0.188	0.204	0.125	0.141
065	1.312-18	0.188	0.204	0.125	0.141
07	1.376-18	0.188	0.204	0.125	0.141
08	1.563-18	0.313	0.329	0.125	0.141
09	1.767-18	0.313	0.329	0.125	0.141
10	1.967-18	0.313	0.329	0.125	0.141
11	2.157-18	0.313	0.329	0.125	0.141
12	2.360-18	0.313	0.329	0.156	0.172
13	2.548-18	0.313	0.329	0.156	0.172
14	2.751-18	0.313	0.329	0.156	0.172
15	2.933-12	0.313	0.329	0.188	0.204
16	3.137-12	0.375	0.391	0.188	0.204
17	3.340-12	0.375	0.391	0.188	0.204
18	3.527-12	0.375	0.391	0.219	0.235
19	3.730-12	0.375	0.391	0.219	0.235
20	3.918-12	0.375	0.391	0.219	0.235
21	4.122-12	0.375	0.391	0.219	0.235
22	4.325-12	0.375	0.391	0.219	0.235
24	4.716-12	0.375	0.391	0.250	0.266
26	5.106-12	0.500	0.516	0.250	0.266
28	5.497-12	0.625	0.641	0.250	0.266
30	5.888-12	0.625	0.641	0.281	0.297
32	6.284-8	0.625	0.641	0.313	0.329
34	6.659-8	0.750	0.766	0.313	0.329
36	7.066-8	0.750	0.766	0.313	0.329
38	7.472-8	0.750	0.766	0.313	0.329
40	7.847-8	0.875	0.891	0.313	0.329



APPENDIX

Keyway Dimensions Required for WI Series Lockwashers

For Lockwasher Size	Thread Designation	Keyway Width		Keyway Depth	
		Minimum (Inches)	Maximum (Inches)	Minimum (Inches)	Maximum (Inches)
01	0.750 - 16	0.188	0.204	0.094	0.110
02	0.875 - 16	0.188	0.204	0.094	0.110
03	1.000 - 16	0.188	0.204	0.094	0.110
04	1.125 - 16	0.188	0.204	0.094	0.110
05	1.250 - 16	0.188	0.204	0.094	0.110
06	1.375 - 16	0.313	0.329	0.094	0.110
07	1.500 - 16	0.313	0.329	0.094	0.110
08	1.625 - 16	0.313	0.329	0.094	0.110
09	1.750 - 16	0.313	0.329	0.094	0.110
10	1.875 - 16	0.313	0.329	0.094	0.110
11	2.000 - 16	0.313	0.329	0.094	0.110
12	2.250 - 16	0.313	0.329	0.094	0.110
13	2.500 - 16	0.313	0.329	0.094	0.110
14	2.750 - 16	0.313	0.329	0.094	0.110
15	3.000 - 16	0.313	0.329	0.094	0.110
16	3.250 - 16	0.396	0.412	0.125	0.141
17	3.500 - 16	0.396	0.412	0.125	0.141
18	3.750 - 16	0.396	0.412	0.125	0.141



APPENDIX

Keyway Dimensions Required for WT & PWT Series Lockwashers

For Lockwasher Size	Thread Designation	Keyway Width		Keyway Depth	
		Minimum (Inches)	Maximum (Inches)	Minimum (Inches)	Maximum (Inches)
00	0.391 - 32	0.125	0.141	0.063	0.079
01	0.469 - 32	0.125	0.141	0.063	0.079
02	0.586 - 32	0.125	0.141	0.078	0.094
03	0.664 - 32	0.125	0.141	0.078	0.094
04	0.781 - 32	0.188	0.204	0.078	0.094
05	0.969 - 32	0.188	0.204	0.094	0.110
06	1.173 - 18	0.188	0.204	0.094	0.110
07	1.376 - 18	0.188	0.204	0.094	0.110
08	1.563 - 18	0.313	0.329	0.094	0.110
09	1.767 - 18	0.313	0.329	0.094	0.110
10	1.967 - 18	0.313	0.329	0.094	0.110
11	2.157 - 18	0.313	0.329	0.125	0.141
12	2.360 - 18	0.313	0.329	0.125	0.141
13	2.548 - 18	0.313	0.329	0.125	0.141
14	2.751 - 18	0.313	0.329	0.125	0.141
15	2.933 - 12	0.313	0.329	0.125	0.141
16	3.137 - 12	0.375	0.391	0.125	0.141
17	3.340 - 12	0.375	0.391	0.125	0.141
18	3.527 - 12	0.375	0.391	0.156	0.172



APPENDIX

Keyway Dimensions Required for W-000 & PP Series Lockwashers & Lockplates

For Lockwasher Size	Thread Designation	Keyway Width		Keyway Depth	
		Minimum (Inches)	Maximum (Inches)	Minimum (Inches)	Maximum (Inches)
022	4.325 - 12	0.375	0.391	0.188	0.204
024	4.716 - 12	0.375	0.391	0.188	0.204
026	5.106 - 12	0.500	0.516	0.188	0.204
028	5.497 - 12	0.625	0.641	0.188	0.204
030	5.888 - 12	0.625	0.641	0.219	0.235
032	6.284 - 8	0.625	0.641	0.234	0.250
034	6.659 - 8	0.750	0.766	0.234	0.250
036	7.066 - 8	0.750	0.766	0.234	0.250
038	7.472 - 8	0.750	0.766	0.234	0.250
040	7.847 - 8	0.875	0.891	0.234	0.250
044	8.628 - 8	1.063	1.079	0.500	0.516
048	9.442 - 8	1.125	1.141	0.500	0.516
052	10.192 - 6	1.188	1.204	0.500	0.516
056	11.004 - 6	1.250	1.266	0.500	0.516
060	11.785 - 6	1.375	1.391	0.500	0.516
064	12.562 - 6	1.438	1.452	0.500	0.516
068	13.303 - 5	1.500	1.516	0.500	0.516
072	14.134 - 5	1.500	1.516	0.500	0.516
076	14.921 - 5	1.500	1.516	0.500	0.516
080	15.709 - 5	1.625	1.641	0.500	0.516
084	16.495 - 5	1.625	1.641	0.500	0.516
088	17.283 - 5	1.812	1.828	0.500	0.516



APPENDIX

Keyway Dimensions Required for MB Series Lockwashers

For Lockwasher Size	Thread Designation	Minimum Keyway Width (mm)	Minimum Keyway Depth (mm)
00	M10 X 0.75	3	1.5
01	M12 X 1.0	3	1.5
02	M15 X 1.0	4	2.9
03	M17 X 1.0	4	2.9
04	M20 X 1.0	4	2.9
044	M22 X 1.0	4	2.9
05	M25 X 1.5	5	3.2
046	M28 X 1.5	5	3.2
06	M30 X 1.5	5	3.2
064	M32 X 1.5	5	3.2
07	M35 X 1.5	6	3.3
08	M40 X 1.5	7	3.6
09	M45 X 1.5	7	3.6
10	M50 X 1.5	7	3.6
11	M55 X 2.0	8	4
12	M60 X 2.0	8	4.2
13	M65 X 2.0	8	4.2
14	M70 X 2.0	8	4.2
15	M75 X 2.0	8	4.6
16	M80 X 2.0	10	5
17	M85 X 2.0	10	5
18	M90 X 2.0	10	5.5
19	M95 X 2.0	10	5.5
20	M100 X 2.0	12	5.5
21	M105 X 2.0	12	5.5
22	M110 X 2.0	12	6
23	M115 X 2.0	12	6
24	M120 X 2.0	14	7
25	M125 X 2.0	14	7
26	M130 X 2.0	14	7
27	M135 X 2.0	14	7
28	M140 X 2.0	16	7
29	M145 X 2.0	16	7
30	M150 X 2.0	16	8
31	M155 X 3.0	16	9
32	M160 X 3.0	18	9
33	M165 X 3.0	18	9
34	M170 X 3.0	18	9
36	M180 X 3.0	20	9
38	M190 X 3.0	20	9
40	M200 X 3.0	20	9



APPENDIX

External Inch & Metric Thread Identification

The simplest and preferred method to identifying a shaft thread is the FIVE (5) STEP METHOD

STEP #1 - SELECTING THE PROPER MEASURING INSTRUMENT

External threaded shafts are typically manufactured to four decimal places (0.0001" or 0.00254 mm), and it is important to accurately measure. The preferred tool for measuring the MAJOR DIAMETER is a calibrated barrel style micrometer. When unavailable, a high precision digital caliper can be used as a substitute.

STEP #2 - ACCURATELY DETERMINE THE THREAD PITCH

Select a clean and undamaged section of the shaft and determine the thread pitch.

For standard inch threads, the simplest methodology is to measure out a one (1) inch section of the shaft and count the number of threads in that section.

For metric threads, measure the shaft distance of ten (10) full threads in millimeters, and then divide by 10.

The majority of shaft threads are manufactured to a variety of standard pitches, a list of standard pitches can be found in Table 1.1 – Inch Thread Pitches & Wire Sizes and Table 1.2 – Metric Thread Pitches & Wire Sizes.

STEP #3 - SELECT THE CORRECT MEASURING WIRES

Once the correct thread pitch has been determined, utilize Tables 1.1 and 1.2 to determine the correct size wires to be used for measuring the shaft.

STEP #4 - USE PROPERLY SELECTED WIRES & MICROMETER TO TAKE MEASUREMENT

Place two (2) of the wires in adjacent threads on the top of the shaft. Use the anvil on the micrometer to hold them in place. Place the third wire one hundred and eighty (180) degrees from the wires on the top of the shaft. (see DIAGRAM 1.1 - THREAD ILLUSTRATION)

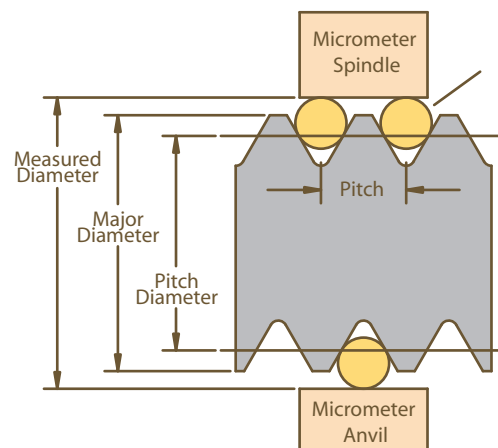
STEP #5 - CALCULATE PITCH DIAMETER OF SHAFT

Observed measurement should be inserted into the following formula to calculate the Pitch Diameter of the shaft:

$$\text{Thread Pitch Diameter} = (\text{Measurement}) - (\text{Wire Constant Value from Table 1.1 or Table 1.2})$$

Once this calculation has been completed, the information of the Major Thread Diameter, Thread Pitch, and Thread Pitch Diameter can be used in conjunction with Appendixes in this handbook to identify the specific thread of the application.

DIAGRAM 1.1 - THREAD ILLUSTRATION





APPENDIX - (CONTINUED)

whittet-higgins company

Table 1.1 - Inch Thread Pitches & Wires Sizes

Threads per Inch	Wire Size	Constant Value
48	0.018	0.03596
44	0.018	0.03432
40	0.018	0.03235
36	0.018	0.02994
32	0.024	0.04494
28	0.024	0.04107
24	0.029	0.05092
20	0.029	0.04370
18	0.032	0.04789
16	0.040	0.06587
14	0.040	0.05814
13	0.045	0.06838
12	0.055	0.09283
11	0.055	0.08627
10	0.055	0.07840
9	0.063	0.09277
8	0.072	0.10775
7	0.081	0.11928
6	0.092	0.13166
5	0.120	0.18679
4	0.143	0.21249
3	0.185	0.26632

Table 1.2 - Metric Thread Pitches & Wires Sizes

Thread Pitch (mm)	Wire Size	Constant Value
0.5	0.018	0.93859
0.6	0.018	0.85198
0.7	0.018	0.76538
0.75	0.024	1.17928
0.8	0.024	1.13598
1.0	0.029	1.34377
1.25	0.032	1.35586
1.5	0.040	1.74896
1.75	0.040	1.53245
2	0.045	1.69694
2.5	0.063	2.63553
3	0.072	2.88831
3.5	0.081	3.14110
4	0.092	3.54628
4.5	0.108	4.33247
5	0.120	4.81385
5.5	0.127	4.91424
6	0.143	5.70042
8	0.185	7.16876



APPENDIX

Bearing Face to Thread Pitch Runout Specifications

Product Series	Size Range	Inches	Millimeters
BL	00 - 20	0.0004"	-
	21 - 40	0.001"	-
BLM	00 - 20	-	0.010 MM
	21 - 40	-	0.025 MM
NSH	00 - 20	0.0004"	-
	21 - 40	0.001"	-
NSHM	00 - 20	-	0.010 MM
	21 - 40	-	0.025 MM
TLN	00 - 10	0.001"	-
	11 - 20	0.002"	-
TLM	00 - 10	-	0.025 MM
	11 - 20	-	0.050 MM
CNB	00 - 20	0.002"	-
	21 - 40	0.004"	-
CNM	00 - 20	-	0.051 MM
	21 - 40	-	0.102 MM
CNC	ALL	0.002"	-
CNC-S	ALL	0.002"	-
CNC-A	ALL	0.002"	-
CNF	ALL	0.002"	-
CNF-S	ALL	0.002"	-
CNF-A	ALL	0.002"	-
CNS	ALL	0.002"	-
CNS-S	ALL	0.002"	-
CNS-A	ALL	0.002"	-
SNC	ALL	0.004"	-
SNC-S	ALL	0.004"	-
SNF	ALL	0.004"	-
SNF-S	ALL	0.004"	-
SNS	ALL	0.004"	-
SNS-S	ALL	0.004"	-
BH	00 - 14	0.0004"	-
	15 - 40	0.001"	-
BHI	00 - 18	0.001"	-
BHL	00 - 14	0.0004"	-
	15 - 40	0.001"	-
BHM	00 - 14	0.0004"	-
	15 - 30	0.001"	-
BHS	00 - 14	0.0004"	-
	15 - 24	0.001"	-
BHT	00 - 14	0.0004"	-
BM	00 - 14	-	0.010 MM
	15 - 40	-	0.025 MM
BML	00 - 14	-	0.010 MM
	15 - 40	-	0.025 MM
BMM	00 - 14	-	0.010 MM
	15 - 30	-	0.025 MM



APPENDIX

Bearing Face to Thread Pitch Runout Specifications

Product Series	Size Range	Inches	Millimeters
BMS	00 - 14	-	0.010 MM
	15 - 24	-	0.025 MM
BMT	02 - 14	-	0.010 MM
PN	00 - 05	0.0004"	-
	06 - 40	0.001"	-
PL	00 - 05	0.0004"	-
	06 - 40	0.001"	-
PT	00 - 05	0.0004"	-
	06 - 18	0.001"	-
N/AN	00 - 20	0.001"	-
	21 - 44	0.002"	-
NE	15 - 20	0.001"	-
	21 - 40	0.002"	-
NH	08 - 40	0.001"	-
NI	01 - 18	0.002"	-
NL	00 - 20	0.001"	-
	21 - 40	0.002"	-
NS	00 - 20	0.001"	-
	21 - 40	0.002"	-
NT	00 - 14	0.001"	-
	15 - 18	0.002"	-
N-XXX	022 - 088	0.002"	-
KM	00 - 20	-	0.025 MM
	21 - 72	-	0.050 MM
KML	00 - 20	-	0.025 MM
	21 - 40	-	0.050 MM
KMM	00 - 20	-	0.025 MM
	21 - 40	-	0.050 MM
KMS	00 - 20	-	0.025 MM
	21 - 40	-	0.050 MM
MS-1722XX	236 - 259	0.002"	-
MS-19068-XX1	001 - 401	0.002"	-
MS-19068-XX2	002 - 402	0.002"	-
MS-19068-XX3	003 - 403	0.002"	-



Face Flatness of Lockwashers Specification

Product Series	Size Range	Inches	Millimeters
PW	00 - 40	0.002"	-
PWF	00 - 40	0.001"	-
PWT	00 - 18	0.002"	-
PWTF	00 - 18	0.001"	-
W	00 - 44	0.005"	-
WH	00 - 40	0.005"	-
WI	01 - 14	0.005"	-
WS	00 - 40	0.005"	-
WT	00 - 18	0.005"	-
W-XXX	022 - 044	0.005"	-
MB	00 - 20	-	0.100 MM
	21 - 40	-	0.200 MM
MBA	00 - 20	-	0.200 MM
	21 - 40	-	0.300 MM
MBS	00 - 20	-	0.200 MM
	21 - 40	-	0.300 MM
MS-1722XX	201 - 224	0.005"	-
MS-19070-XX1	001 - 401	0.005"	-
MS-19070-XX2	002 - 402	0.005"	-
MS-19070-XX3	003 - 403	0.005"	-



Revision History

Date	Page	Description
08/01/2018	N/A	Initial Release - Revision 20180801