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TG GRIPSERTS GRIPPER SYSTEM



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FIXED GRIPPERS

ROUND STYLE



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Tool Steel - Serrated - Tapped - Inch.....	11	HS
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Stainless - Urethane Surface - Tapped - Inch.....	16	CSRP
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Stainless - Diamond Abrasive Surface - Tapped - Metric.....	17	MCSRP
Stainless - Diamond Abrasive Surface - Counter Bored - Inch.....	17	CSRP
Stainless - Diamond Abrasive Surface - Counter Bored - Metric.....	17	MCSRP

SQUARE STYLE



Tool Steel - Serrated - Tapped - Inch.....	18	HS
Tool Steel - Serrated - Tapped - Metric.....	18	MHS
Carbide Tipped - Serrated - Tapped - Inch.....	18	CT
Carbide Tipped - Serrated - Tapped - Metric.....	18	MCT
Solid Carbide - Serrated - Tapped - Inch.....	19	FSC
Tool Steel - Straight Serrations - Tapped - Inch.....	19	HS
Tool Steel - Serrated - Counter Bored - Inch.....	20	HS
Tool Steel - Serrated - Counter Bored - Metric.....	20	MHS
Tool Steel - Straight Serrations - Counter Bored - Inch.....	20	HS

ANGLED STYLE



Tool Steel - Tapped - Inch.....	21	HS
Tool Steel - Tapped - Metric.....	21	MHS
Solid Carbide - Tapped - Inch.....	21	FSC
Solid Carbide - Tapped - Metric.....	21	MFSC
Carbide Tipped - Tapped - Inch.....	22	CT
Carbide Tipped - Tapped - Metric.....	22	MCT

EDGE STYLE



Tool Steel - Serrated - Counter Bored - Inch.....	22	HSE
Tool Steel - Serrated - Counter Bored - Metric.....	22	MHSE
Tool Steel - Straight Serrations - Counter Bored - Inch.....	23	HSE
Tool Steel - Straight Serrations - Counter Bored - Metric.....	23	MHSE

QUICK INDEX

CARBIDE PADS



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Round - Serrated - No Hole - Inch	24	CC
Square - Serrated - No Hole - Inch	24	CS
Rectangle - Serrated - No Hole - Inch	24	CR

REST PADS



	Page Number	Part # Prefix
Carbide Tipped - Tapped - Inch	25	CRP
Solid Carbide - No Hole - Inch	25	CC
Steel - Tapped - Inch	26	SRP
Steel - Tapped - Metric	26	MSRP
Steel - Counter Bored - Inch	26	SRP
Steel - Counter Bored - Metric	26	MSRP
Stainless - Tapped - Inch	27	CSRP
Stainless - Tapped - Metric	27	MCSRP
Stainless - Counter Bored - Inch	27	CSRP
Stainless - Counter Bored - Metric	27	MCSRP
Delrin - Tapped - Inch	28	DRP
Delrin - Tapped - Metric	28	MDRP
Delrin - Counter Bored - Inch	28	DRP
Delrin - Counter Bored - Metric	28	MDRP

THREADED ADJUSTABLE GRIPPERS



	Page Number	Part # Prefix
Hex Head - Carbide Tipped - Inch	29	CTH & CTHF
Hex Head - Carbide Tipped - Metric	30	MCTH
AdjustaGrip™ Hex Head - Replaceable Pad - Inch	30	AJH
Round Head - Carbide Tipped - Inch	31	AG
AccuGrip™ - Carbide Tipped - Inch	31	ACG
Threaded Body - Steel - Inch	32	HS
Threaded Body - Steel - Metric	32	MHS
Threaded Body - Carbide Tipped - Inch	33	PG
Threaded Body - Carbide Tipped - Metric	33	MPG

SWIVOTS® - REPLACEABLE SWIVEL BALL STYLE

BASE DESIGN



	Page Number	Part # Prefix
Stainless Ball - Urethane Surface - Inch	35	BBU
Stainless Ball - Urethane Surface - Metric	35	MBBU
Delrin Ball - Flat Cone - Inch	36	BBU
Delrin Ball - Flat Cone - Metric	36	MBBU
Stainless Ball - Flat Cone - Inch	36	BBU
Stainless Ball - Flat Cone - Metric	36	MBBU
Stainless Ball - Abrasive Diamond - Inch	36	BBU
Stainless Ball - Abrasive Diamond - Metric	36	MBBU
Tool Steel Ball - Serrated - Inch	37	BBU
Tool Steel Ball - Serrated - Metric	38	MBBU
Delrin Ball - Flat - Inch	39	BBU
Delrin Ball - Flat - Metric	39	MBBU
Tool Steel Ball - Flat - Inch	39	BBU
Tool Steel Ball - Flat - Metric	39	MBBU

HEX HEAD



Stainless Ball - Urethane Surface - Inch	40	BUH
Stainless Ball - Urethane Surface - Metric	41	MBUH
Delrin Ball - Flat Cone - Inch	42	BUH
Delrin Ball - Flat Cone - Metric	43	MBUH
Stainless Ball - Flat Cone - Inch	41	BUH
Stainless Ball - Flat Cone - Metric	43	MBUH

QUICK INDEX

Stainless Ball - Abrasive Diamond - Inch.....	42	BUH
Stainless Ball - Abrasive Diamond - Metric.....	43	MBUH
Tool Steel Ball - Serrated - Inch	44-46	BUH
Tool Steel Ball - Serrated - Metric	46	MBUH

	Page Number	Part # Prefix
Delrin Ball - Flat - Inch	47-48	BUH
Delrin Ball - Flat - Metric	48	MBUH
Tool Steel Ball - Flat - Inch	47-48	BUH
Tool Steel Ball - Flat - Metric	48	MBUH

THREADED BODY



Stainless Ball - Urethane Surface - Inch	49	TBU
Stainless Ball - Urethane Surface - Metric.....	50	MTBU
Delrin Ball - Flat Cone - Inch.....	51	TBU
Delrin Ball - Flat Cone - Metric.....	52	MTBU
Stainless Ball - Flat Cone - Inch	51	TBU
Stainless Ball - Flat Cone - Metric	52	MTBU
Stainless Ball - Abrasive Diamond - Inch.....	51	TBU
Stainless Ball - Abrasive Diamond - Metric.....	52	MTBU
Tool Steel Ball - Serrated - Inch	53-54	TBU
Tool Steel Ball - Serrated - Metric	55	MTBU
Delrin Ball - Flat - Inch	56-57	TBU
Delrin Ball - Flat - Metric	57	MTBU
Tool Steel Ball - Flat - Inch	56-57	TBU
Tool Steel Ball - Flat - Metric	57	MTBU

SWIVOTS® - REPLACEABLE SWIVEL PAD STYLE



Page Number Part # Prefix



Page Number Part # Prefix



Page Number Part # Prefix

BASE DESIGN

Inch	59	BBU
Metric	59	MBBU

HEX HEAD

Inch	60	BUH
Metric	60	MBUH

THREADED BODY

Inch	61	TBU
Metric	61	MTBU

THRUST SCREW ASSEMBLIES

THREADED BODY



Stainless Ball - Urethane Surface - Inch.....	63	TST
Delrin Ball - Flat Cone - Inch	64-65	TST
Stainless Ball - Flat Cone - Inch	64-65	TST
Stainless Ball - Abrasive Diamond - Inch	64-65	TST
Tool Steel Ball - Serrated - Inch	66	TST
Stainless Ball - Round - Inch	67-68	TST
Delrin Ball - Round - Inch	66-68	TST

SOCKET HEAD



Stainless Ball - Urethane Surface - Inch	69-70	TSH & TSHF
Delrin Ball - Flat Cone - Inch	71-72	TSH & TSHF
Stainless Ball - Flat Cone - Inch	71-72	TSH & TSHF
Stainless Ball - Abrasive Diamond - Inch	71-72	TSH & TSHF
Tool Steel Ball - Serrated - Inch	73-74	TSH & TSHF
Stainless Ball - Round - Inch	75-76	TSH & TSHF
Delrin Ball - Round - Inch	75-76	TSH & TSHF

REPLACEABLE PAD OVERVIEW

Rest Pads & Gripper Pads



Solid Carbide

High impact carbide pads. Can be brazed or bonded into place.



Carbide Tipped

Constructed with a high impact carbide pad brazed to a heat treated alloy steel body. Mounts with tapped hole or a flat on the outside diameter for set screw mounting.



Hardened Steel

Made from 8620 steel, carburized and hardened to Rc 58/60 .050" case with black oxide finish. Mounts with tapped or counter bored hole.



Non-Marring Delrin

Made from white Delrin. Mounts with tapped or counter bored hole.



Stainless Steel

The pad is made from 17-4 stainless steel, hardened to Rc 43/46. Mounts with tapped or counter bored hole.



Abrasive Diamond Surface

The abrasive surface is permanently fused to a 17-4 stainless steel pad, hardened to Rc 43/46. The surface texture is comparable to a 100 grit abrasive. Mounts with tapped or counter bored hole.



Sof-Top® Urethane Surface

The urethane surface is permanently bonded to a 300 series stainless steel pad. The urethane provides excellent protection against damage on delicate work surfaces. They are available in two durometers. Tapped hole mounting.



GP-Series Rubber Gripper Pad

Black nitrile rubber is molded to a malleable aluminum backing that can be formed to round or sharp corners. Highly customizable and easily replaceable for industrial grade contact wear points in automation and positioning applications.

TOOTH PATTERN SPECIFICATIONS

Throughout this catalog, you will find reference to tooth patterns on all serrated grippers. Please use the chart below for specific information regarding these tooth patterns. If additional information is required, please contact us.

Angle Grippers



Smooth



4 Point



Fine



Straight

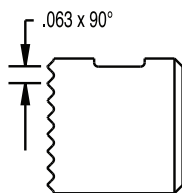


Angular Straight

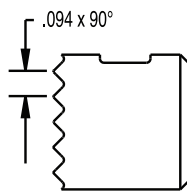


3 Point /
90° Straight

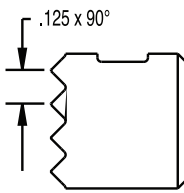
Round and Square Grippers



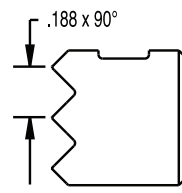
Super Fine
"SF"



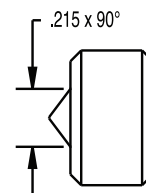
Extra Fine
"EF"



Fine



Coarse



Single Point

Diamond
Serration
Pattern



Straight
Serration
Pattern
"SS"



REPLACEABLE PAD OVERVIEW

Serrated Gripper Pads



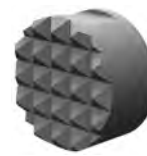
High Speed Tool Steel

Round, square, edge, and angle grippers manufactured from M-2 high speed tool steel, hardened to Rc 60/62 with black oxide finish. Mounts with tapped hole, counter bored hole or a flat on the outside diameter for set screw mounting.



Carbide Tipped

Round, square, and angle grippers constructed with a high impact carbide pad brazed to a heat treated alloy steel body. Mounts with tapped hole or a flat on the outside diameter for set screw mounting.



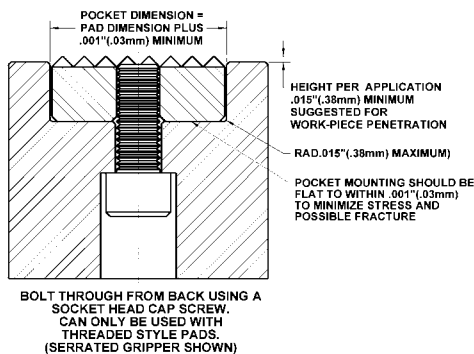
Solid Carbide

Round and square grippers manufactured from high impact carbide in a solid gripper pad or as a solid gripper body with a threaded brazed-in steel insert. Mounts with tapped hole or a flat on the outside diameter for set screw mounting.

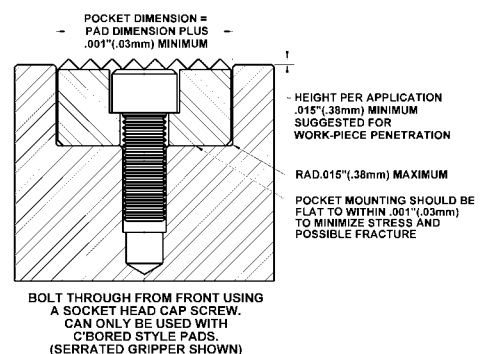
GRIPPER PAD AND REST PAD MOUNTING APPLICATIONS AND SPECIFICATIONS

Below are some of the more common mounting applications for fixed grippers, rest pads and carbide pads shown in this catalog.

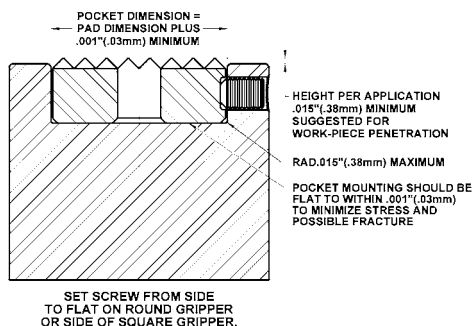
Round or square grippers and rest pads with tapped blind-hole or through hole tap.



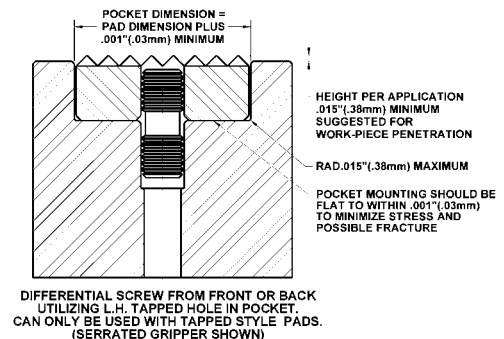
Round or square grippers and rest pads with counter-bored hole.



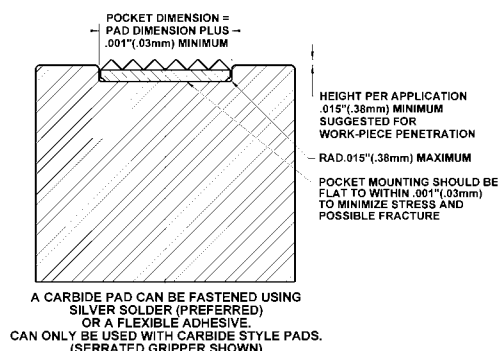
Round grippers with flat on the O.D. for set screw mounting, or square gripper.



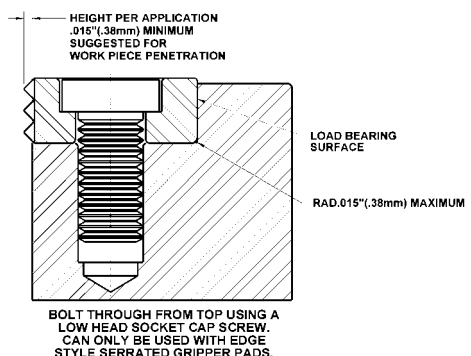
Round or square grippers with through tapped hole.



Round or square carbide pads.



Counter-bored edge grippers.



THREADED ADJUSTABLE GRIPPER OVERVIEW



Carbide Tipped

Round and Hex head styles constructed with a steel body. Carbide tipped for positive holding and wear resistance.



High Speed Steel

Manufactured from M-2 high speed tool steel, hardened to Rc 55/58. Internal hex on backside allows for positioning adjustment.



AdjustaGrip™

The gripper pad can be replaced when it becomes worn. Uses tapped through hole grippers.



AccuGrip™

Designed to fit within chuck jaws to adjust concentricity. Carbide tipped for wear resistance.

SWIVOTS® & THRUST SCREW OVERVIEW

Swivots® & Thrust Screw Replaceable Balls



Sof-Top™ Urethane Surface Cone

The urethane surface is permanently bonded to a stainless steel ball. Provides excellent protection and non-slip grip on finished and other delicate surfaces. Available in 3 durometers.



Non-Marring Delrin Cone

Made from white Delrin plastic. Non-marring and non-staining for finished and other delicate surfaces.



Stainless Steel Cone

Made from stainless steel. Provides excellent corrosion resistance in harsh environments.



Abrasive Diamond Surface

The diamond surface is permanently bonded to a stainless steel ball. The surface texture is comparable to a 100 grit abrasive. Provides excellent grip on a variety of surfaces with minimal penetration.



High Speed Steel -Serrated

Made from hardened M-2 high speed tool steel. Available in 3 different serration patterns.



Non-Marring Delrin

Made from white Delrin plastic. Non-marring and non-staining for finished and other delicate surfaces. Available with different stand off heights.



Flat Tool Steel

Made from hardened M-2 high speed tool steel. Heat treated to Rc 60/62. Available with different stand off heights.



Round Delrin Ball

Made from white Delrin plastic. Non-marring and non-staining.



Round Stainless Steel Ball

Made from 440c stainless steel. Heat treated to Rc 58/62.

SWIVOTS® & THRUST SCREW OVERVIEW

Replaceable Pad Style Swivots®



- Unique design allows the pad and ball cup to swivel, tilt, clamp, grip, hold position and secure a work piece.
- The internal ball cup allows the pad to rotate 360 degrees and tilt at varying degrees from center.
- Interchangeable parts speed setups and changeovers.
- O-ring holds the ball in place and keeps out dirt and other contaminants.
- Replaceable pad design allows for easy change out when the pad is worn or a different contact surface is required.

Replaceable Swivel Ball Style Swivots®



- The unique design of the Swivots prevent the ball from exceeding the specified degree of swivel which stops the ball from rolling over in the housing.
- The replaceable ball can be changed when it is worn or another contact surface is required.
- The ball is held in place with a Viton o-ring which allows for smooth movement and keeps out dirt and contaminants.
- The replaceable balls are available in several different styles to meet a wide range of workholding and positioning applications.

Replaceable Swivel Ball Style Thrust Screw Assemblies



- The free floating ball design allows the thrust screw to continue rotating while the ball remains stationary against the contact surface.
- They are ideal for holding and positioning irregular shaped or contoured work pieces.
- The different housing styles allow for a variety of mounting options.
- The ball is held in place with a Viton o-ring which allows for smooth movement and keeps out dirt and other contaminants.

TG GRIPSERTS GRIPPER SYSTEM

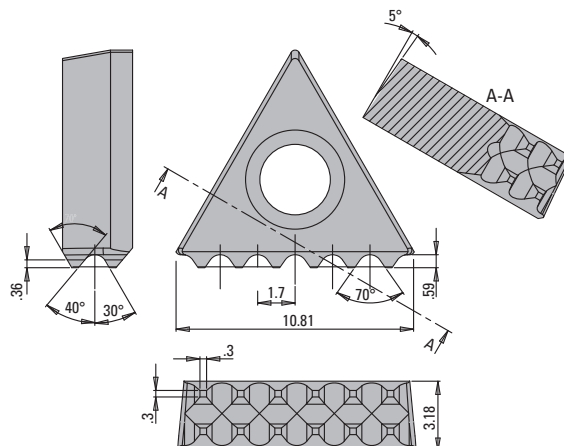
With as little as 2mm (.08") of workpiece clamp surface to securely hold the workpiece, TG GripSert workholding grippers are ideal for 5-axis machining operations and minimizing scrap material. The GripSert grippers offer many advantages over traditional clamping systems including exceptional clamping stability, no need for pre-machining or dovetailing workpieces, vibration dampening and allowing for very secure holding at lower clamping forces to avoid deforming the workpiece. Because of the geometry of the grippers and jaws, the GripSert grippers create a pull down effect that prevents any lifting of the workpiece while clamping. GripSert grippers combine a coated carbide with specialized teeth and triangular shapes that penetrate different types of workpiece materials including steel, hardened steel / titanium (up to 50-54 HRC) and aluminum. Typical vise applications can use 1-5 inserts per jaw, requiring up to 6,600 lbs. of clamping force for tooth penetration. See www.fairlaneproducts.com for complete technical information and insert-to-force charts. Each insert type is sold in a pack of 10.

Typical Clamping Surface (Double Row)	Min. Clamping Surface (Single Row)
3.5mm (.14")	2mm (.08")

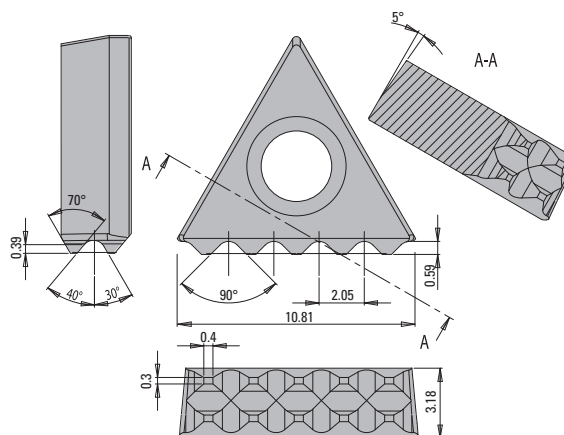


DIMENSIONS IN MILLIMETERS

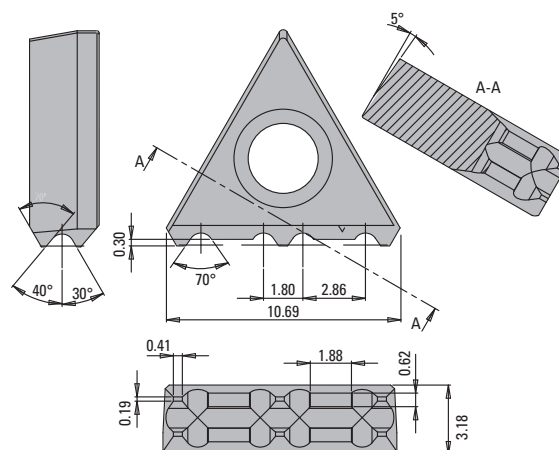
Grippers For Steel



Grippers For Hardened Steel / Titanium



Grippers For Aluminum



Part #	Pack Quantity	For Use With
TG-STD	10	Steel
TG-HRC	10	Hardened Steel/Titanium
TG-ALU	10	Aluminum

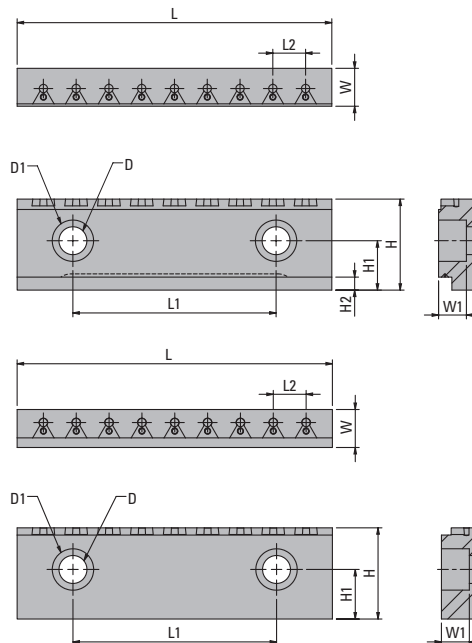
TG GRIPSERTS GRIPPER SYSTEM

Jaw Set | Retrofit Kurt 6"



TGJ-06P

TGJ-06



These jaw sets allows you to use TG GripSert inserts on Kurt 6" vises. Set includes one pair of jaws, Torx T9 wrench and 10-pack of screws. TGJ-06P also includes one pair of quick change 1.6-inch parallels. On TGJ-06P, install and uninstall the parallels easily by hand with no additional tools necessary.

Part #	D	D1	L	L1	L2	W	W1	H	H1	Parallel Height
TGJ-06	.43	.79	5.98	3.87	.625	.72	.53	1.74	.93	—
TGJ-06P	.43	.79	5.98	3.87	.625	.72	.53	1.74	.93	1.61

Parallel Set



Patented snap-in, self-locking design allows quick change of parallels on the retrofit jaw sets shown above. Set includes 6 pairs of parallels with heights as listed below.

Part #	Parallel Pairs Qty	Parallel Height mm
TG-PRL	6	15/20/25/30/39*/42**

*5mm clamping surface compatible with GripSert low profile grippers

**2mm clamping surface compatible with GripSert low profile grippers (single row of teeth gripping)

GripSert Screws



These screws are used to mount the GripSert workholding inserts. Includes set of 10 Torx T9 screws.

Part #	Qty	Torx mm
TG-SCW	10	T9

Aluminum Protective Covers



These covers protect the jaw from dirt and debris when GripSert inserts are not in place. The covers are made from aluminum and available in sets of ten.

Part #	Qty
TG-PRO	10

Torx T9 Screwdriver



This screwdriver fits Torx T9 screws. Designed for use with all GripSert workholding inserts.

Part #	Torx
TG-DRIVER	T9

Torx T9 Wrench



This wrench fits Torx T9 screws. Designed for use with all GripSert workholding inserts.

Part #	Torx
TG-WRENCH	T9

D3 Cutting Tool



This cutting tool is used to prepare jaws to receive GripSert workholding inserts. Parameters of this 3.3 mm diameter cutting tool: 80% 120 M/mm; Fz = .02 mm per tooth. Cutting tool is 3-fluted and made from solid carbide.

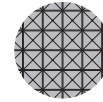
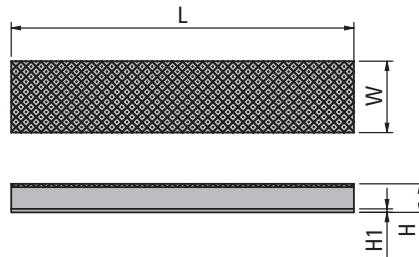
Part #	Size/Type
TG-CUTTER	D3

RUBBER GRIPPER PADS - GP SERIES

Strips

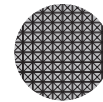


MA MODIFICATIONS
AVAILABLE



Hatch Surface

Least surface contact; Increased surface pressure; forces applied over reduced contact area



Fine Hatch Surface

Medium surface contact; Medium surface pressure; forces applied over reduced contact area



Smooth Surface

Greatest surface contact; Gripping forces evenly distributed

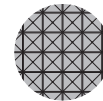
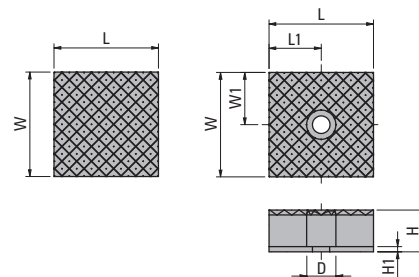
Rubber gripper pads are ideal for industrial grade contact wear points in automation and positioning applications. Black nitrile rubber (60A durometer) is molded to a malleable aluminum backing that can be formed to round or sharp corners. The aluminum backing is 1/16" thick. Select the smooth surface for the greatest contact area to evenly distribute the gripping forces. Select the fine hatch or hatch surface to increase surface pressure and apply the force over a reduced contact area. Adhesive backing (.045" thick) available for mounting and is provided separately, not affixed. Highly customizable and easily replaceable for a wide variety of uses. Standard sizes available off-the-shelf for designers and end users to make final size and mounting preparation, or custom sizes made to order. See nitrile material specifications online at www.fairlaneproducts.com.

Part #	Plate	Surface	L	W	H	H1
GP-604H	Aluminum	Hatch	6	1-1/4	1/4	1/16
GP-604F	Aluminum	Fine Hatch	6	1-1/4	1/4	1/16
GP-604S	Aluminum	Smooth	6	1-1/4	1/4	1/16
GP-608H	Aluminum	Hatch	6	1-1/4	1/2	1/16
GP-608F	Aluminum	Fine Hatch	6	1-1/4	1/2	1/16
GP-608S	Aluminum	Smooth	6	1-1/4	1/2	1/16
GPA-604H	Aluminum w/ Adhesive Backing	Hatch	6	1-1/4	1/4	1/16
GPA-604F	Aluminum w/ Adhesive Backing	Fine Hatch	6	1-1/4	1/4	1/16
GPA-604S	Aluminum w/ Adhesive Backing	Smooth	6	1-1/4	1/4	1/16
GPA-608H	Aluminum w/ Adhesive Backing	Hatch	6	1-1/4	1/2	1/16
GPA-608F	Aluminum w/ Adhesive Backing	Fine Hatch	6	1-1/4	1/2	1/16
GPA-608S	Aluminum w/ Adhesive Backing	Smooth	6	1-1/4	1/2	1/16

Squares

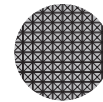


MA MODIFICATIONS
AVAILABLE



Hatch Surface

Least surface contact; Increased surface pressure; forces applied over reduced contact area



Fine Hatch Surface

Medium surface contact; Medium surface pressure; forces applied over reduced contact area



Smooth Surface

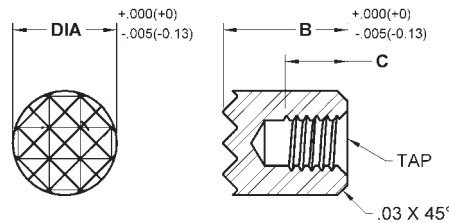
Greatest surface contact; Gripping forces evenly distributed

Rubber gripper pads are ideal for industrial grade contact wear points in automation and positioning applications. Black nitrile rubber (60A durometer) is molded to a malleable aluminum backing that can be formed to round or sharp corners. The aluminum backing is 1/16" thick. Select the smooth surface for the greatest contact area to evenly distribute the gripping forces. Select the fine hatch or hatch surface to increase surface pressure and apply the force over a reduced contact area. Offered with a c' bore hole or adhesive backing or mounting. The adhesive backing is .045" thick and affixed to the aluminum backing. Highly customizable and easily replaceable for a wide variety of uses. Custom sizes available. See nitrile material specifications online at www.fairlaneproducts.com.

Part #	Plate	Surface	D For BHCS Screw	L	L1	W	W1	H	H1
GP-124H	Aluminum	Hatch	#8 or M4	1-1/4	5/8	1-1/4	5/8	1/4	1/16
GP-124F	Aluminum	Fine Hatch	#8 or M4	1-1/4	5/8	1-1/4	5/8	1/4	1/16
GP-124S	Aluminum	Smooth	#8 or M4	1-1/4	5/8	1-1/4	5/8	1/4	1/16
GP-128H	Aluminum	Hatch	#8 or M4	1-1/4	5/8	1-1/4	5/8	1/2	1/16
GP-128F	Aluminum	Fine Hatch	#8 or M4	1-1/4	5/8	1-1/4	5/8	1/2	1/16
GP-128S	Aluminum	Smooth	#8 or M4	1-1/4	5/8	1-1/4	5/8	1/2	1/16
GPA-124H	Aluminum w/ Adhesive Backing	Hatch	—	1-1/4	5/8	1-1/4	5/8	1/4	1/16
GPA-124F	Aluminum w/ Adhesive Backing	Fine Hatch	—	1-1/4	5/8	1-1/4	5/8	1/4	1/16
GPA-124S	Aluminum w/ Adhesive Backing	Smooth	—	1-1/4	5/8	1-1/4	5/8	1/4	1/16
GPA-128H	Aluminum w/ Adhesive Backing	Hatch	—	1-1/4	5/8	1-1/4	5/8	1/2	1/16
GPA-128F	Aluminum w/ Adhesive Backing	Fine Hatch	—	1-1/4	5/8	1-1/4	5/8	1/2	1/16
GPA-128S	Aluminum w/ Adhesive Backing	Smooth	—	1-1/4	5/8	1-1/4	5/8	1/2	1/16

FIXED GRIPPERS

Round Style | Tool Steel | Serrated | Tapped | Inch & Metric



Made from M-2 high speed steel. Hardened to Rc 60/62 with black oxide finish. Serrated for positive holding in tough applications. Blind-hole tap for back side mounting. See page 4 for tooth pattern specifications. See page 5 for mounting specifications.

INCH

Part #	B Height	C Tap Depth	Tooth Pattern
1/4" Dia - #8-32 Tap			
HS-20	3/8	3/16	EF
HS-20-SF	3/8	3/16	SF
HS-205	1/2	5/16	EF
HS-205-SF	1/2	5/16	SF
5/16" Dia - #8-32 Tap			
HS-30	3/8	3/16	EF
HS-30-SF	3/8	3/16	SF
HS-305	1/2	5/16	EF
HS-305-SF	1/2	5/16	SF

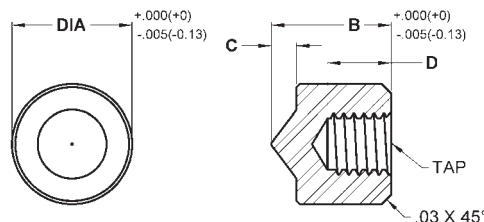
Part #	B Height	C Tap Depth	Tooth Pattern
3/8" Dia - #10-32 Tap			
HS-40-BL	3/8	3/16	EF
HS-40-BL-SF	3/8	3/16	SF
HS-405-BL	1/2	5/16	EF
HS-405-BL-SF	1/2	5/16	SF
1/2" Dia - #10-32 Tap			
HS-50-BL	3/8	3/16	Fine
HS-50-BL-EF	3/8	3/16	EF
HS-50-BL-SF	3/8	3/16	SF
HS-53-BL	1/2	5/16	Fine
HS-53-BL-EF	1/2	5/16	EF
HS-53-BL-SF	1/2	5/16	SF

METRIC

Part #	B Height	C Tap Depth	Tooth Pattern
6mm Dia - M3x0.5 Tap			
MHS-060-SF	10	5	SF
MHS-062-SF	12	7	SF

Part #	B Height	C Tap Depth	Tooth Pattern
8mm Dia - M4x0.7 Tap			
MHS-080-SF	10	5	SF
MHS-082-SF	12	7	SF

Round Style | Tool Steel | Single Point | Tapped | Inch



Made from M-2 high speed steel. Hardened to Rc 60/62 with black oxide finish. Single point contact allows for reduced force yet deeper penetration. Blind-hole tap for back side mounting. See page 5 for mounting specifications.

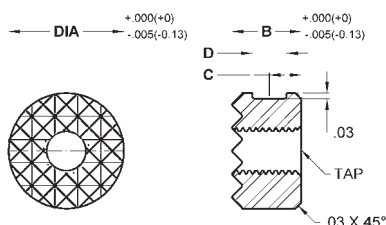
INCH

Part #	B Height	C Stand Off	D Tap Depth
1/4" Dia - #8-32 Tap			
HS-20-1	3/8	5/64	1/8
HS-205-1	1/2	5/64	1/4
5/16" Dia - #8-32 Tap			
HS-30-1	3/8	5/64	1/8
HS-305-1	1/2	5/64	1/4

Part #	B Height	C Stand Off	D Tap Depth
3/8" Dia - #10-32 Tap			
HS-40-1	3/8	5/64	1/8
HS-405-1	1/2	5/64	1/4
1/2" Dia - #10-32 Tap			
HS-50-1	3/8	5/64	1/8
HS-53-1	1/2	5/64	1/4

FIXED GRIPPERS

Round Style | Tool Steel | Serrated | Tapped | Inch & Metric



Made from M-2 high speed steel. Hardened to Rc 60/62 with black oxide finish. Serrated for positive holding in tough applications. Thru-hole tap. Flat on O.D. for set screw mounting. See page 4 for tooth pattern specifications. See page 5 for mounting specifications.

INCH

Part #	B Height	C Flat Pos.	D Flat Width	Tooth Pattern
3/8" Dia - #10-32 Tap				
HS-40	3/8	11/64	3/16	EF
HS-40-SF	3/8	11/64	3/16	SF
HS-405	1/2	15/64	3/16	EF
HS-405-SF	1/2	15/64	3/16	SF
1/2" Dia - #10-32 Tap				
HS-50	3/8	11/64	3/16	Fine
HS-50-EF	3/8	11/64	3/16	EF
HS-50-SF	3/8	11/64	3/16	SF
HS-51	1/2	15/64	3/16	Coarse
HS-52*	1/2	Keyway	—	Fine
HS-52-EF*	1/2	Keyway	—	EF
HS-53	1/2	15/64	3/16	Fine
HS-53-EF	1/2	15/64	3/16	EF
HS-53-SF	1/2	15/64	3/16	SF
HS-54	.651	19/64	3/16	Fine
HS-54-EF	.651	19/64	3/16	EF

*Keyway = .130" width, .060" depth

Part #	B Height	C Flat Pos.	D Flat Width	Tooth Pattern
5/8" Dia - 1/4-28 Tap				
HS-62	3/8	11/64	3/16	Fine
HS-62-EF	3/8	11/64	3/16	EF
HS-63	3/8	11/64	3/16	Coarse
HS-625	1/2	15/64	3/16	Fine
HS-625-EF	1/2	15/64	3/16	EF
HS-635	1/2	15/64	3/16	Coarse
3/4" Dia - 1/4-28 Tap				
HS-75	3/8	11/64	3/16	Fine
HS-75-EF	3/8	11/64	3/16	EF
HS-76	3/8	11/64	3/16	Coarse
HS-755	1/2	15/64	3/16	Fine
HS-755-EF	1/2	15/64	3/16	EF
HS-765	1/2	15/64	3/16	Coarse
1" Dia - 1/4-28 Tap				
HS-81	3/8	11/64	3/16	Coarse
HS-82	3/8	11/64	3/16	Fine
HS-82-EF	3/8	11/64	3/16	EF
HS-815	1/2	15/64	3/16	Coarse
HS-825	1/2	15/64	3/16	Fine
HS-825-EF	1/2	15/64	3/16	EF

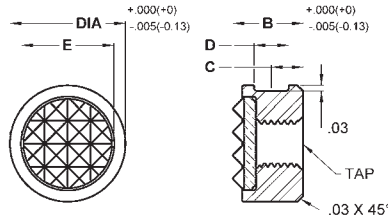
METRIC

Part #	B Height	C Flat Pos.	D Flat Width	Tooth Pattern
10mm Dia - M5x0.8 Tap				
MHS-100	10	4.5	4.75	EF
MHS-102	12	6	4.75	EF
12mm Dia - M5x0.8 Tap				
MHS-120	10	4.5	4.75	Fine
MHS-122	12	6	4.75	Fine
16mm Dia - M6x1.0 Tap				
MHS-160	10	4.5	4.75	Fine
MHS-162	12	6	4.75	Fine

Part #	B Height	C Flat Pos.	D Flat Width	Tooth Pattern
20mm Dia - M6x1.0 Tap				
MHS-200	10	4.5	4.75	Fine
MHS-202	12	6	4.75	Fine
25mm Dia - M6x1.0 Tap				
MHS-250	10	4.5	4.75	Fine
MHS-252	12	6	4.75	Fine

FIXED GRIPPERS

Round Style | Carbide Tipped | Serrated | Tapped | Inch & Metric



Constructed with a serrated carbide gripper pad brazed to a heat treated alloy steel body. Blind-hole tap for back side mounting. Flat on O.D. for set screw mounting. See page 4 for tooth pattern specifications. See page 5 for mounting specifications.

INCH

Part #	B Height	C Flat Pos.	D Flat Width	E Pad Dia.	Tooth Pattern
3/8" Dia – #10-32 Tap					
CT-830	3/8	11/64	3/16	5/16	EF
CT-830-4	3/8	11/64	3/16	5/16	4 Point
CT-835	1/2	15/64	3/16	5/16	EF
CT-835-4	1/2	15/64	3/16	5/16	4 Point
1/2" Dia – #10-32 Tap					
CT-840	1/2	15/64	3/16	3/8	Fine
CT-840-EF	1/2	15/64	3/16	3/8	EF
CT-840-4	1/2	15/64	3/16	3/8	4 Point
CT-841	3/8	11/64	3/16	3/8	Fine
CT-841-EF	3/8	11/64	3/16	3/8	EF
CT-841-4	3/8	11/64	3/16	3/8	4 Point
CT-842	.651	19/64	3/16	3/8	Fine
CT-842-EF	.651	19/64	3/16	3/8	EF
CT-842-4	.651	19/64	3/16	3/8	4 Point
CT-844*	1/2	Keyway	–	3/8	Fine
CT-844-EF*	1/2	Keyway	–	3/8	EF
CT-844-4*	1/2	Keyway	–	3/8	4 Point
5/8" Dia – 1/4-28 Tap					
CT-850	3/8	11/64	3/16	1/2	Fine
CT-850-EF	3/8	11/64	3/16	1/2	EF
CT-855	1/2	15/64	3/16	1/2	Fine
CT-855-EF	1/2	15/64	3/16	1/2	EF
CT-071*	5/8	Keyway	–	1/2	Fine
CT-071-EF*	5/8	Keyway	–	1/2	EF
CT-071-4*	5/8	Keyway	–	1/2	4 Point
3/4" Dia – 1/4-28 Tap					
CT-860	3/8	11/64	3/16	5/8	Fine
CT-860-EF	3/8	11/64	3/16	5/8	EF
CT-862	1/2	15/64	3/16	5/8	Fine
CT-862-EF	1/2	15/64	3/16	5/8	EF
1" Dia – 1/4-28 Tap					
CT-865	3/8	11/64	3/16	3/4	Fine
CT-865-EF	3/8	11/64	3/16	3/4	EF

*Keyway= .130" width, .060" depth

METRIC

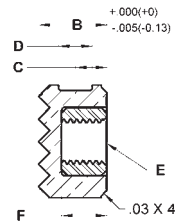
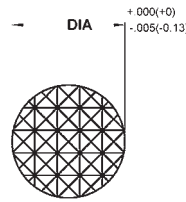
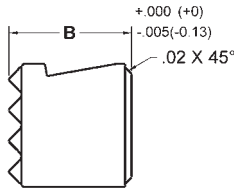
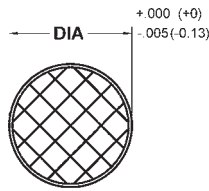
Part #	B Height	C Flat Pos.	D Flat Width	E Pad Dia.	Tooth Pattern
10mm Dia – M5x0.8 Tap					
MCT-100	10	4.5	4.75	5/16	EF
MCT-102	12	6.0	4.75	5/16	EF
12mm Dia – M5x0.8 Tap					
MCT-120	10	4.5	4.75	3/8	Fine
MCT-122	12	6.0	4.75	3/8	Fine
16mm Dia – M6x1.0 Tap					
MCT-160	10	4.5	4.75	1/2	Fine
MCT-162	12	6.0	4.75	1/2	Fine
20mm Dia – M6x1.0 Tap					
MCT-200	10	4.5	4.75	5/8	Fine
MCT-202	12	6.0	4.75	5/8	Fine
25mm Dia – M6x1.0 Tap					
MCT-250	10	4.5	4.75	3/4	Fine
MCT-252	12	6.0	4.75	3/4	Fine

INCH DIAMETERS WITH METRIC THREADS

Part #	B Height	C Flat Pos.	D Flat Width	E Pad Dia.	Tooth Pattern
1/2" Dia – M6x1.0 Tap					
MCT-840-EF	1/2	15/64	3/16	3/8	EF
MCT-841-EF	3/8	11/64	3/16	3/8	EF
MCT-842-EF	.651	19/64	3/16	3/8	EF
5/8" Dia – M6x1.0 Tap					
MCT-850-EF	3/8	11/64	3/16	1/2	EF
3/4" Dia – M6x1.0 Tap					
MCT-860-EF	3/8	11/64	3/16	5/8	EF

FIXED GRIPPERS

Round Style | Solid Carbide | Serrated | Tapped | Inch



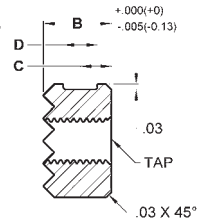
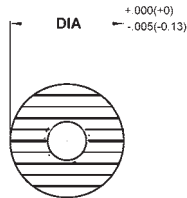
Made from solid carbide for high wear and high load applications. Serrated for positive holding in tough applications. Blind-hole tap for back side mounting. Flat on O.D. for set screw mounting. See page 4 for tooth pattern specifications. See page 5 for mounting specifications.

INCH

Part #	B Height	C Flat Pos.	D Flat Width	E Thread Size	F Tap Depth	Tooth Pattern
1/4" Dia						
FSC-20-SF-SL	3/8	—	—	—	—	SF
FSC-20-4-SL	3/8	—	—	—	—	4 Point
5/16" Dia						
FSC-30-SL	3/8	—	—	—	—	EF
FSC-30-4-SL	3/8	—	—	—	—	4 Point
3/8" Dia						
FSC-40-SL	3/8	—	—	—	—	EF
FSC-40-4-SL	3/8	—	—	—	—	4 Point

Part #	B Height	C Flat Pos.	D Flat Width	E Thread Size	F Tap Depth	Tooth Pattern
1/2" Dia						
FSC-841	3/8	11/64	3/16	#10-32	3/16	Fine
FSC-844-4	1/2	15/64	3/16	#10-32	5/16	4 Point
FSC-844	1/2	15/64	3/16	#10-32	5/16	Fine
FSC-844-SL	1/2	15/64	3/16	—	—	Fine
FSC-070-4	1/2	—	Keyway	#10-32	5/16	4 Point
FSC-070	1/2	—	Keyway	#10-32	5/16	Fine
5/8" Dia						
FSC-850	3/8	11/64	3/16	1/4-28	3/16	Fine
3/4" Dia						
FSC-860	3/8	11/64	3/16	1/4-28	3/16	Fine

Round Style | Tool Steel | Straight Serrations | Tapped | Inch



Made from M-2 high speed steel. Hardened to Rc 60/62 with black oxide finish. Serrated for positive holding in tough applications. Thru-hole tap. Flat on O.D. for set screw mounting. See page 4 for tooth pattern specifications. See page 5 for mounting specifications.

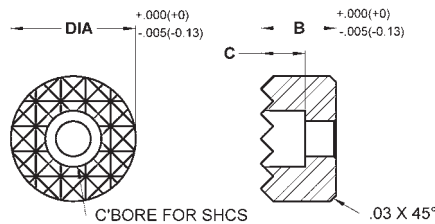
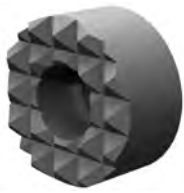
INCH

Part #	B Height	C Flat Pos.	D Flat Width	Tooth Pattern
3/8" Dia - #10-32 Tap				
HS-40-SS	3/8	11/64	3/16	EF
HS-40-SS-SF	3/8	11/64	3/16	SF
HS-405-SS	1/2	15/64	3/16	EF
HS-405-SS-SF	1/2	15/64	3/16	SF
1/2" Dia - #10-32 Tap				
HS-50-SS	3/8	11/64	3/16	Fine
HS-50-SS-EF	3/8	11/64	3/16	EF
HS-50-SS-SF	3/8	11/64	3/16	SF
HS-51-SS	1/2	15/64	3/16	Coarse
HS-53-SS	1/2	15/64	3/16	Fine
HS-53-SS-EF	1/2	15/64	3/16	EF
HS-53-SS-SF	1/2	15/64	3/16	SF
5/8" Dia - 1/4-28 Tap				
HS-62-SS	3/8	11/64	3/16	Fine
HS-62-SS-EF	3/8	11/64	3/16	EF
HS-63-SS	3/8	11/64	3/16	Coarse
HS-625-SS	1/2	15/64	3/16	Fine
HS-625-SS-EF	1/2	15/64	3/16	EF
HS-635-SS	1/2	15/64	3/16	Coarse

Part #	B Height	C Flat Pos.	D Flat Width	Tooth Pattern
3/4" Dia - 1/4-28 Tap				
HS-75-SS	3/8	11/64	3/16	Fine
HS-75-SS-EF	3/8	11/64	3/16	EF
HS-76-SS	3/8	11/64	3/16	Coarse
HS-755-SS	1/2	15/64	3/16	Fine
HS-755-SS-EF	1/2	15/64	3/16	EF
HS-765-SS	1/2	15/64	3/16	Coarse
1" Dia - 1/4-28 Tap				
HS-81-SS	3/8	11/64	3/16	Coarse
HS-82-SS	3/8	11/64	3/16	Fine
HS-82-SS-EF	3/8	11/64	3/16	EF
HS-815-SS	1/2	15/64	3/16	Coarse
HS-825-SS	1/2	15/64	3/16	Fine
HS-825-SS-EF	1/2	15/64	3/16	EF

FIXED GRIPPERS

Round Style | Tool Steel | Serrated | Counter Bored | Inch & Metric



Made from M-2 high speed steel. Hardened to Rc 60/62 with black oxide finish. Serrated for positive holding in tough applications. Counter bored hole for front mounting with a socket head cap screw. See page 4 for tooth pattern specifications. See page 5 for mounting specifications.

INCH

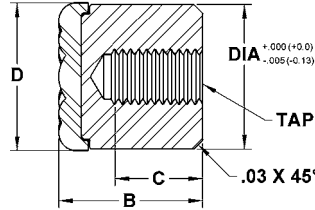
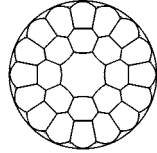
Part #	B Height	C C'Bore Depth	Tooth Pattern
1/2" Dia - Counter Bored for #8 SHCS			
HS-50-C	3/8	7/32	Fine
HS-50-C-EF	3/8	7/32	EF
HS-50-C-SF	3/8	7/32	SF
HS-53-C	1/2	7/32	Fine
HS-53-C-EF	1/2	7/32	EF
HS-53-C-SF	1/2	7/32	SF
5/8" Dia - Counter Bored for #8 SHCS			
HS-62-C	3/8	7/32	Fine
HS-62-C-EF	3/8	7/32	EF
HS-625-C	1/2	7/32	Fine
HS-625-C-EF	1/2	7/32	EF
3/4" Dia - Counter Bored for #10 SHCS			
HS-75-C	3/8	1/4	Fine
HS-75-C-EF	3/8	1/4	EF
HS-755-C	1/2	1/4	Fine
HS-755-C-EF	1/2	1/4	EF
HS-76-C	3/8	1/4	Coarse
HS-765-C	1/2	5/16	Coarse
1" Dia - Counter Bored for 1/4" SHCS			
HS-81-C	1/2	5/16	Coarse
HS-82-C	1/2	5/16	Fine
HS-82-C-EF	1/2	5/16	EF

METRIC

Part #	B Height	C C'Bore Depth	Tooth Pattern
12mm Dia - Counter Bored for M4 SHCS			
MHS-120-C	10	5.6	Fine
MHS-122-C	12	5.6	Fine
16mm Dia - Counter Bored for M4 SHCS			
MHS-160-C	10	5.6	Fine
MHS-162-C	12	5.6	Fine
20mm Dia - Counter Bored for M5 SHCS			
MHS-200-C	10	6.6	Fine
MHS-202-C	12	6.6	Fine
25mm Dia - Counter Bored for M6 SHCS			
MHS-250-C	10	7.6	Fine
MHS-252-C	12	7.6	Fine

FIXED GRIPPERS

Round Style | Stainless Steel | Sof-Top Urethane Surface | Tapped | Inch & Metric



The urethane surface is permanently bonded to a 300 series stainless steel pad. The non-marking, non-staining urethane provides excellent protection against damage on delicate work surfaces. The "bubbled" texture of the urethane top offers firm holding and allows air to escape so no suction is created between the contact surface and the top of the rest pad as it is compressed. Because the top is made of urethane it offers superior abrasion and wear resistance. They are available in three durometers to meet a wide variety of application needs. Blind-hole tap for back side mounting. See page 5 for mounting specifications.

INCH

Part #	B Height	C Tap Depth	D Contact Dia.	Durometer	Urethane Thickness	Load Compression Lbs.*
5/16" Dia - #8-32 Tap						
CSRP-305-35UR	1/2	1/4	.315	35	.08	10
CSRP-305-60UR	1/2	1/4	.315	60	.08	30
CSRP-305-80UR	1/2	1/4	.315	80	.08	45
3/8" Dia - #10-32 Tap						
CSRP-405-35UR	1/2	1/4	.394	35	.08	12
CSRP-405-60UR	1/2	1/4	.394	60	.08	35
CSRP-405-80UR	1/2	1/4	.394	80	.08	90
1/2" Dia - #10-32 Tap						
CSRP-53-35UR	1/2	1/4	.512	35	.08	40
CSRP-53-60UR	1/2	1/4	.512	60	.08	75
CSRP-53-80UR	1/2	1/4	.512	80	.08	190
5/8" Dia - 1/4-28 Tap						
CSRP-625-35UR	1/2	1/4	.630	35	.08	80
CSRP-625-60UR	1/2	1/4	.630	60	.08	160
CSRP-625-80UR	1/2	1/4	.630	80	.08	260
3/4" Dia - 1/4-28 Tap						
CSRP-755-35UR	1/2	1/4	.827	35	.12	85
CSRP-755-60UR	1/2	1/4	.827	60	.12	230
CSRP-755-80UR	1/2	1/4	.827	80	.12	365
1" Dia - 1/4-28 Tap						
CSRP-815-35UR	1/2	1/4	1.063	35	.12	145
CSRP-815-60UR	1/2	1/4	1.063	60	.12	300
CSRP-815-80UR	1/2	1/4	1.063	80	.12	600

*Load compression is based on the weight to compress the urethane surface .032" for the .08" thick pad and .042" for the .12" thick pad. These ratings can vary greatly depending on temperature and other factors that normally affect the performance of urethane.

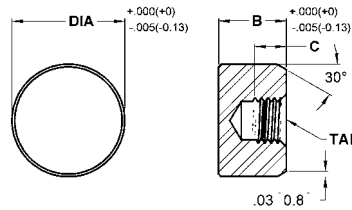
METRIC

Part #	B Height	C Tap Depth	D Contact Dia.	Durometer	Urethane Thickness	Load Compression Lbs.*
8mm Dia - M4x0.7 Tap						
MCSRP-082-35UR	12	6	8	35	2	10
MCSRP-082-60UR	12	6	8	60	2	30
MCSRP-082-80UR	12	6	8	80	2	45
10mm Dia - M5x0.8 Tap						
MCSRP-102-35UR	12	6	10	35	2	12
MCSRP-102-60UR	12	6	10	60	2	35
MCSRP-102-80UR	12	6	10	80	2	90
12mm Dia - M5x0.8 Tap						
MCSRP-122-35UR	12	6	13	35	2	40
MCSRP-122-60UR	12	6	13	60	2	75
MCSRP-122-80UR	12	6	13	80	2	190
16mm Dia - M6x1.0 Tap						
MCSRP-162-35UR	12	6	16	35	2	80
MCSRP-162-60UR	12	6	16	60	2	160
MCSRP-162-80UR	12	6	16	80	2	260
20mm Dia - M6x1.0 Tap						
MCSRP-202-35UR	12	6	21	35	3	85
MCSRP-202-60UR	12	6	21	60	3	230
MCSRP-202-80UR	12	6	21	80	3	365
25mm Dia - M6x1.0 Tap						
MCSRP-252-35UR	12	6	27	35	3	145
MCSRP-252-60UR	12	6	27	60	3	300
MCSRP-252-80UR	12	6	27	80	3	600

*Load compression is based on the weight to compress the urethane surface .812mm for the 2mm thick pad and 1.066mm for the 3mm thick pad. These ratings can vary greatly depending on temperature and other factors that normally affect the performance of urethane.

FIXED GRIPPERS

Round Style | Stainless Steel | Abrasive Diamond Surface | Tapped | Inch & Metric



The abrasive surface is permanently fused to a stainless steel pad. The surface texture is comparable to a 100 grit abrasive. They are ideal for holding smooth or slippery applications with a minimum of clamping pressure. Individual diamond particles transfer holding pressure to a very small and well distributed area, providing superior holding with minimal surface marking. The diamond surface also provides unparalleled wear resistance. The pad is made from 17-4 stainless steel which provides high strength as well as protection against chemical and environmental corrosion. Heat treated to Rc 43/46. Blind-hole tap for back side mounting. See page 5 for mounting specifications.

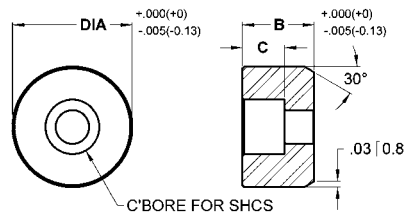
INCH

Part #	B Height	C Tap Depth
5/16" Dia - #8-32 Tap		
CSRP-30-DS	3/8	3/16
CSRP-305-DS	1/2	5/16
3/8" Dia - #10-32 Tap		
CSRP-40-DS	3/8	3/16
CSRP-405-DS	1/2	5/16
1/2" Dia - #10-32 Tap		
CSRP-50-DS	3/8	3/16
CSRP-53-DS	1/2	5/16

METRIC

Part #	B Height	C Tap Depth
8mm Dia - M4x0.7 Tap		
MCSRP-080-DS	10	5
MCSRP-082-DS	12	6.4
10mm Dia - M5x0.8 Tap		
MCSRP-100-DS	10	5
MCSRP-102-DS	12	6.4
12mm Dia - M5x0.8 Tap		
MCSRP-120-DS	10	5
MCSRP-122-DS	12	6.4

Round Style | Stainless Steel | Abrasive Diamond Surface | Counter Bored | Inch & Metric



The abrasive surface is permanently fused to a stainless steel pad. The surface texture is comparable to a 100 grit abrasive. They are ideal for holding smooth or slippery applications with a minimum of clamping pressure. Individual diamond particles transfer holding pressure to a very small and well distributed area, providing superior holding with minimal surface marking. The diamond surface also provides unparalleled wear resistance. The pad is made from 17-4 stainless steel which provides high strength as well as protection against chemical and environmental corrosion. Heat treated to Rc 43/46. Counter bored hole for front mounting with a socket head cap screw. See page 5 for mounting specifications.

INCH

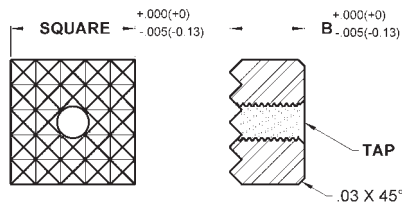
Part #	B Height	C C'Bores Depth
3/8" Dia - Counter Bored for #6 SHCS		
CSRP-40-C-DS	3/8	3/16
CSRP-405-C-DS	1/2	3/16
1/2" Dia - Counter Bored for #8 SHCS		
CSRP-50-C-DS	3/8	7/32
CSRP-53-C-DS	1/2	7/32
5/8" Dia - Counter Bored for #8 SHCS		
CSRP-62-C-DS	3/8	7/32
CSRP-625-C-DS	1/2	7/32

METRIC

Part #	B Height	C C'Bores Depth
10mm Dia - Counter Bored for M3 SHCS		
MCSRP-100-C-DS	10	5
MCSRP-102-C-DS	12	5
12mm Dia - Counter Bored for M4 SHCS		
MCSRP-120-C-DS	10	5.6
MCSRP-122-C-DS	12	5.6
16mm Dia - Counter Bored for M5 SHCS		
MCSRP-160-C-DS	10	6.6
MCSRP-162-C-DS	12	6.6

FIXED GRIPPERS

Square Style | Tool Steel | Serrated | Tapped | Inch & Metric



Made from M-2 high speed steel. Hardened to Rc 60/62 with black oxide finish. Serrated for positive holding in tough applications. Thru-hole tap. See page 4 for tooth pattern specifications. See page 5 for mounting specifications.

INCH

Part #	B Height	Tooth Pattern
3/8" Square - #10-32 Tap		
HS-90	3/8	EF
HS-90-SF	3/8	SF
HS-905	1/2	EF
HS-905-SF	1/2	SF
1/2" Square - #10-32 Tap		
HS-95	3/8	Fine
HS-95-EF	3/8	EF
HS-95-SF	3/8	SF
HS-955	1/2	Fine
HS-955-EF	1/2	EF
HS-955-SF	1/2	SF
HS-96	3/8	Coarse
HS-965	1/2	Coarse

Part #	B Height	Tooth Pattern
5/8" Square - #10-32 Tap		
HS-962	3/8	Fine
HS-962-EF	3/8	EF
HS-963	3/8	Coarse
HS-9625	1/2	Fine
HS-9625-EF	1/2	EF
HS-9635	1/2	Coarse
3/4" Square - #10-32 Tap		
HS-97	3/8	Fine
HS-97-EF	3/8	EF
HS-98	3/8	Coarse
HS-975	1/2	Fine
HS-975-EF	1/2	EF
HS-985	1/2	Coarse

Part #	B Height	Tooth Pattern
1" Square - 1/4-28 Tap		
HS-101	3/8	Fine
HS-101-EF	3/8	EF
HS-102	3/8	Coarse
HS-105	1/2	Fine
HS-105-EF	1/2	EF
HS-106	1/2	Coarse

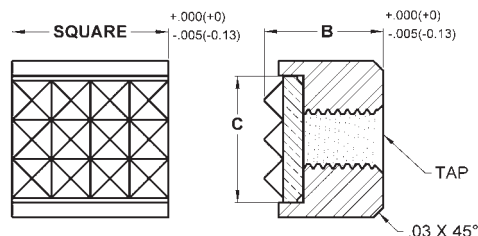
METRIC

Part #	B Height	Tooth Pattern
10mm Square - M5x0.8 Tap		
MHS-9100	10	EF
MHS-9102	12	EF
12mm Square - M5x0.8 Tap		
MHS-9120	10	Fine
MHS-9122	12	Fine

Part #	B Height	Tooth Pattern
16mm Square - M6x1.0 Tap		
MHS-9160	10	Fine
MHS-9162	12	Fine
20mm Square - M5x0.8 Tap		
MHS-9200	10	Fine
MHS-9202	12	Fine

Part #	B Height	Tooth Pattern
25mm Square - M6x1.0 Tap		
MHS-9250	10	Fine
MHS-9252	12	Fine

Square Style | Carbide Tipped | Serrated | Tapped | Inch & Metric



Constructed with a serrated carbide gripper pad brazed to a heat treated alloy steel body. Blind-hole tap for back side mounting. See page 4 for tooth pattern specifications. See page 5 for mounting specifications.

INCH

Part #	B Height	C	Tooth Pattern
1/2" Square - #10-32 Tap			
CT-870	3/8	13/32	Fine
CT-870-EF	3/8	13/32	EF
CT-875	1/2	13/32	Fine
CT-875-EF	1/2	13/32	EF

INCH WITH METRIC THREADS

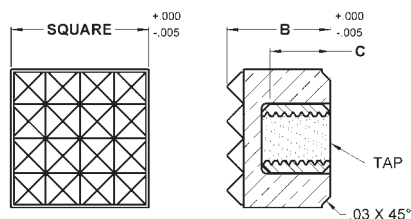
Part #	B Height	C	Tooth Pattern
1/2" Square - M6x1.0 Tap			
MCT-870-EF	3/8	13/32	EF

METRIC

Part #	B Height	C	Tooth Pattern
12mm Square - M5x0.8 Tap			
MCT-9120	10	13/32	Fine
MCT-9122	12	13/32	Fine

FIXED GRIPPERS

Square Style | Solid Carbide | Serrated | Tapped | Inch

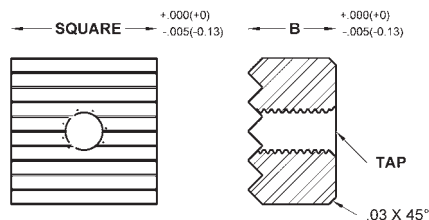


Made from solid carbide for high wear and high load applications. Serrated for positive holding in tough applications. Blind-hole tap for back side mounting. See page 4 for tooth pattern specifications. See page 5 for mounting specifications.

INCH

Part #	B Height	C Tap Depth	Tooth Pattern
1/2" Square - #10-32 Tap			
FSC-870	3/8	3/16	Fine
FSC-875	1/2	5/16	Fine

Square Style | Tool Steel | Straight Serrations | Tapped | Inch



Made from M-2 high speed steel. Hardened to Rc 60/62 with black oxide finish. Serrated for positive holding in tough applications. Thru-hole tap. See page 4 for tooth pattern specifications. See page 5 for mounting specifications.

INCH

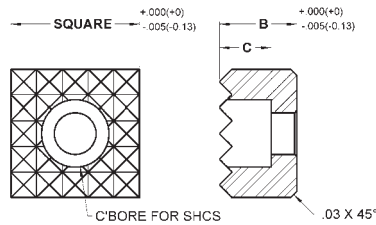
Part #	B Height	Tooth Pattern
3/8" Square - #10-32 Tap		
HS-90-SS	3/8	EF
HS-90-SS-SF	3/8	SF
HS-905-SS	1/2	EF
HS-905-SS-SF	1/2	SF
1/2" Square - #10-32 Tap		
HS-95-SS	3/8	Fine
HS-95-SS-EF	3/8	EF
HS-95-SS-SF	3/8	SF
HS-955-SS	1/2	Fine
HS-955-SS-EF	1/2	EF
HS-955-SS-SF	1/2	SF
HS-96-SS	3/8	Coarse
HS-965-SS	1/2	Coarse

Part #	B Height	Tooth Pattern
5/8" Square - #10-32 Tap		
HS-962-SS	3/8	Fine
HS-962-SS-EF	3/8	EF
HS-9625-SS	1/2	Fine
HS-9625-SS-EF	1/2	EF
HS-963-SS	3/8	Coarse
HS-9635-SS	1/2	Coarse
3/4" Square - #10-32 Tap		
HS-97-SS	3/8	Fine
HS-97-SS-EF	3/8	EF
HS-975-SS	1/2	Fine
HS-975-SS-EF	1/2	EF
HS-98-SS	3/8	Coarse
HS-985-SS	1/2	Coarse

Part #	B Height	Tooth Pattern
1" Square - 1/4-28 Tap		
HS-101-SS	3/8	Fine
HS-101-SS-EF	3/8	EF
HS-102-SS	3/8	Coarse
HS-105-SS	1/2	Fine
HS-105-SS-EF	1/2	EF
HS-106-SS	1/2	Coarse

FIXED GRIPPERS

Square Style | Tool Steel | Serrated | Counter Bored | Inch & Metric



Made from M-2 high speed steel. Hardened to Rc 60/62 with black oxide finish. Serrated for positive holding in tough applications. Counter bored hole for front mounting with a socket head cap screw. See page 4 for tooth pattern specifications. See page 5 for mounting specifications.

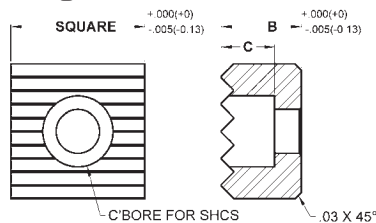
INCH

Part #	B Height	C C'Bore Depth	Tooth Pattern
1/2" Square - Counter Bored for #10 SHCS			
HS-92-C	3/8	1/4	Fine
HS-92-C-EF	3/8	1/4	EF
HS-92-C-SF	3/8	1/4	SF
HS-95-C	1/2	1/4	Fine
HS-95-C-EF	1/2	1/4	EF
HS-95-C-SF	1/2	1/4	SF
5/8" Square - Counter Bored for #10 SHCS			
HS-962-C	3/8	1/4	Fine
HS-962-C-EF	3/8	1/4	EF
HS-9625-C	1/2	1/4	Fine
HS-9625-C-EF	1/2	1/4	EF
HS-963-C	3/8	1/4	Coarse
HS-9635-C	1/2	1/4	Coarse
3/4" Square - Counter Bored for 1/4" SHCS			
HS-97-C	1/2	5/16	Fine
HS-97-C-EF	1/2	5/16	EF
HS-98-C	1/2	5/16	Coarse
1" Square - Counter Bored for 1/4" SHCS			
HS-101-C	1/2	5/16	Fine
HS-101-C-EF	1/2	5/16	EF
HS-102-C	1/2	5/16	Coarse

METRIC

Part #	B Height	C C'Bore Depth	Tooth Pattern
12mm Square - Counter Bored for M4 SHCS			
MHS-9120-C	10	5.6	Fine
MHS-9122-C	12	5.6	Fine
16mm Square - Counter Bored for M4 SHCS			
MHS-9160-C	10	5.6	Fine
MHS-9162-C	12	5.6	Fine
20mm Square - Counter Bored for M5 SHCS			
MHS-9200-C	10	6.6	Fine
MHS-9202-C	12	6.6	Fine
25mm Square - Counter Bored for M6 SHCS			
MHS-9250-C	10	7.6	Fine
MHS-9252-C	12	7.6	Fine

Square Style | Tool Steel | Straight Serrations | Counter Bored | Inch



Made from M-2 high speed steel. Hardened to Rc 60/62 with black oxide finish. Serrated for positive holding in tough applications. Counter bored hole for front mounting with a socket head cap screw. See page 4 for tooth pattern specifications. See page 5 for mounting specifications.

INCH

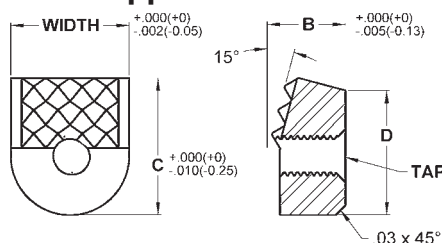
Part #	B Height	C C'Bore Depth	Tooth Pattern
1/2" Square - Counter Bored for #10 SHCS			
HS-92-C-SS	3/8	1/4	Fine
HS-92-C-SS-EF	3/8	1/4	EF
HS-92-C-SS-SF	3/8	1/4	SF
HS-95-C-SS	1/2	1/4	Fine
HS-95-C-SS-EF	1/2	1/4	EF
HS-95-C-SS-SF	1/2	1/4	SF

Part #	B Height	C C'Bore Depth	Tooth Pattern
5/8" Square - Counter Bored for #10 SHCS			
HS-962-C-SS	3/8	1/4	Fine
HS-962-C-SS-EF	3/8	1/4	EF
HS-9625-C-SS	1/2	1/4	Fine
HS-9625-C-SS-EF	1/2	1/4	EF
HS-963-C-SS	3/8	1/4	Coarse
HS-9635-C-SS	1/2	1/4	Coarse

Part #	B Height	C C'Bore Depth	Tooth Pattern
3/4" Square - Counter Bored for 1/4" SHCS			
HS-97-C-SS	1/2	5/16	Fine
HS-97-C-SS-EF	1/2	5/16	EF
HS-98-C-SS	1/2	5/16	Coarse
1" Square - Counter Bored for 1/4" SHCS			
HS-101-C-SS	1/2	5/16	Fine
HS-101-C-SS-EF	1/2	5/16	EF
HS-102-C-SS	1/2	5/16	Coarse

FIXED GRIPPERS

Angled Style | Tool Steel | Tapped | Inch & Metric

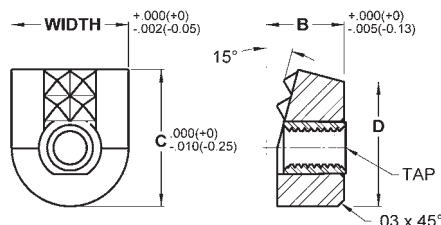


Made from M-2 high speed steel. Hardened to Rc 60/62 with black oxide finish. Serrated and smooth styles available. Grippers are angled at 15 degrees to fit Woodworth, Maxi-Grip, and Ultra-Grip rocker style chucks. Thru-hole tap. See page 4 for tooth pattern specifications.

Part #	B	C	D	Tooth Pattern
9/16" Width - #10-32 Tap				
HS-110	3/8	.65	.60	Smooth
HS-127-4	3/8	.65	.60	4 Point
HS-127-12	3/8	.65	.60	Fine
HS-130-4	3/8	.65	.60	Straight
HS-145-5	3/8	.65	.60	Angular
HS-150-3	3/8	.65	.60	3 Point/90°ST
9/16" Width - M5x0.8 Tap				
MHS-110	3/8	.65	.60	Smooth
MHS-127-4	3/8	.65	.60	4 Point
MHS-127-12	3/8	.65	.60	Fine
MHS-130-4	3/8	.65	.60	Straight
MHS-145-5	3/8	.65	.60	Angular
MHS-150-3	3/8	.65	.60	3 Point/90°ST
3/4" Width - 1/4-28 Tap				
HS-128-4	1/2	.88	.81	4 Point
HS-128-22	1/2	.88	.81	Fine
HS-158-3	1/2	.88	.81	3 Point/90°ST

Part #	B	C	D	Tooth Pattern
10mm Width - #10-32 Tap				
HS-110-10MM	3/8	.65	.60	Smooth
HS-127-4-10MM	3/8	.65	.60	4 Point
HS-130-4-10MM	3/8	.65	.60	Straight
HS-145-5-10MM	3/8	.65	.60	Angular
HS-150-3-10MM	3/8	.65	.60	3 Point/90°ST
10mm Width - M5x0.8 Tap				
MHS-110-10MM	3/8	.65	.60	Smooth
MHS-127-4-10MM	3/8	.65	.60	4 Point
MHS-130-4-10MM	3/8	.65	.60	Straight
MHS-145-5-10MM	3/8	.65	.60	Angular
MHS-150-3-10MM	3/8	.65	.60	3 Point/90°ST

Angled Style | Solid Carbide | Tapped | Inch & Metric



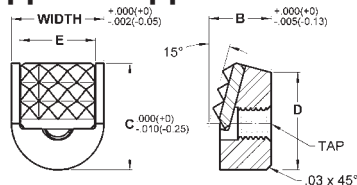
Made from solid carbide for high wear and high load applications. Serrated for positive holding in tough applications. Grippers are angled at 15 degrees to fit Woodworth, Maxi-Grip, and Ultra-Grip rocker style chucks. Thru-hole tap. See page 4 for tooth pattern specifications.

Part #	B	C	D	Tooth Pattern
9/16" Width - #10-32 Tap				
FSC-127-4	3/8	.65	.60	4 Point
FSC-127-10	3/8	.65	.60	Fine
FSC-130-4	3/8	.65	.60	Straight
FSC-145-5	3/8	.65	.60	Angular
9/16" Width - M5x0.8 Tap				
MFSC-127-4	3/8	.65	.60	4 Point
MFSC-127-10	3/8	.65	.60	Fine
MFSC-130-4	3/8	.65	.60	Straight
MFSC-145-5	3/8	.65	.60	Angular

Part #	B	C	D	Tooth Pattern
10mm Width - #10-32 Tap				
FSC-127-4-10MM	3/8	.65	.60	4 Point
FSC-130-2-10MM	3/8	.65	.60	Straight
10mm Width - M5x0.8 Tap				
MFSC-127-4-10MM	3/8	.65	.60	4 Point
MFSC-130-2-10MM	3/8	.65	.60	Straight

FIXED GRIPPERS

Angled Style | Carbide Tipped | Tapped | Inch & Metric



Constructed with a serrated carbide gripper pad brazed to a heat treated alloy steel body. Serrated for positive holding in tough applications. Grippers are angled at 15 degrees to fit Woodworth, Maxi-Grip, and Ultra-Grip rocker style chucks. Thru-hole tap. See page 4 for tooth pattern specifications.

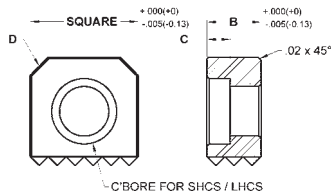
INCH

Part #	B	C	D	E	Tooth Pattern
9/16" Width - #10-32 Tap					
CT-127-4	3/8	.65	.60	15/32	4 Point
CT-127-12	3/8	.65	.60	15/32	Fine
CT-130-4	3/8	.65	.60	15/32	Straight
CT-145-5	3/8	.65	.60	15/32	Angular

INCH WITH METRIC THREADS

Part #	B	C	D	E	Tooth Pattern
9/16" Width - M5x0.8 Tap					
MCT-127-4	3/8	.65	.60	15/32	4 Point
MCT-127-12	3/8	.65	.60	15/32	Fine
MCT-130-4	3/8	.65	.60	15/32	Straight
MCT-145-5	3/8	.65	.60	15/32	Angular

Edge Style | Tool Steel | Serrated | Counter Bored | Inch & Metric



Made from M-2 high speed steel. Hardened to Rc 60/62 with black oxide finish. Square edge grippers have serrations on one side. Counter bored hole for front mounting with a socket head or low head cap screw. See page 4 for tooth pattern specifications. See page 5 for mounting specifications.

INCH

Part #	B Height	C C'Bore Depth	D Chamfer	Tooth Pattern
3/8" Square - Counter Bored for #6 SHCS				
HSE-902	1/4	.146	1/16 x 45°	EF
HSE-902-SF	1/4	.146	1/16 x 45°	SF
HSE-903	3/8	.146	1/16 x 45°	EF
HSE-903-SF	3/8	.146	1/16 x 45°	SF
HSE-905	1/2	.146	1/16 x 45°	EF
HSE-905-SF	1/2	.146	1/16 x 45°	SF
1/2" Square - Counter Bored for #8 SHCS				
HSE-952	1/4	.170	3/32 x 45°	Fine
HSE-952-EF	1/4	.170	3/32 x 45°	EF
HSE-952-SF	1/4	.170	3/32 x 45°	SF
HSE-953	3/8	.175	3/32 x 45°	Fine
HSE-953-EF	3/8	.175	3/32 x 45°	EF
HSE-953-SF	3/8	.175	3/32 x 45°	SF
HSE-955	1/2	.175	3/32 x 45°	Fine
HSE-955-EF	1/2	.175	3/32 x 45°	EF
HSE-955-SF	1/2	.175	3/32 x 45°	SF

Part #	B Height	C C'Bore Depth	D Chamfer	Tooth Pattern
5/8" Square - Counter Bored for 1/4" LHCS				
HSE-962	1/4	.130	1/8 x 45°	Fine
HSE-962-EF	1/4	.130	1/8 x 45°	EF
HSE-963	3/8	.130	1/8 x 45°	Fine
HSE-963-EF	3/8	.130	1/8 x 45°	EF
HSE-965	1/2	.130	1/8 x 45°	Fine
HSE-965-EF	1/2	.130	1/8 x 45°	EF
3/4" Square - Counter Bored for 5/16" LHCS				
HSE-972	1/4	.161	1/8 x 45°	Fine
HSE-972-EF	1/4	.161	1/8 x 45°	EF
HSE-973	3/8	.161	1/8 x 45°	Fine
HSE-973-EF	3/8	.161	1/8 x 45°	EF
HSE-975	1/2	.161	1/8 x 45°	Fine
HSE-975-EF	1/2	.161	1/8 x 45°	EF
1" Square - Counter Bored for 3/8" LHCS				
HSE-102	1/4	.194	1/8 x 45°	Fine
HSE-102-EF	1/4	.194	1/8 x 45°	EF
HSE-103	3/8	.194	1/8 x 45°	Fine
HSE-103-EF	3/8	.194	1/8 x 45°	EF
HSE-105	1/2	.194	1/8 x 45°	Fine
HSE-105-EF	1/2	.194	1/8 x 45°	EF

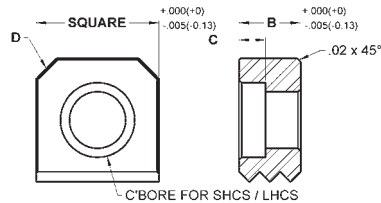
METRIC

Part #	B Height	C C'Bore Depth	D Chamfer	Tooth Pattern
10mm Square - Counter Bored for M3 SHCS				
MHSE-9106	6	3.20	1.6 x 45°	EF
MHSE-9100	10	3.20	1.6 x 45°	EF
12mm Square - Counter Bored for M4 SHCS				
MHSE-9126	6	4.06	2.3 x 45°	Fine
MHSE-9120	10	4.06	2.3 x 45°	Fine
MHSE-9122	12	4.06	2.3 x 45°	Fine

Part #	B Height	C C'Bore Depth	D Chamfer	Tooth Pattern
16mm Square - Counter Bored for M6 LHCS				
MHSE-9166	6	4.2	3.2 x 45°	Fine
MHSE-9160	10	4.2	3.2 x 45°	Fine
MHSE-9162	12	4.2	3.2 x 45°	Fine
20mm Square - Counter Bored for M8 LHCS				
MHSE-9206	6	5.08	3.2 x 45°	Fine
MHSE-9200	10	5.08	3.2 x 45°	Fine
MHSE-9202	12	5.08	3.2 x 45°	Fine
25mm Square - Counter Bored for M10 LHCS				
MHSE-9250	10	6.6	3.2 x 45°	Fine
MHSE-9252	12	6.6	3.2 x 45°	Fine

FIXED GRIPPERS

Edge Style | Tool Steel | Straight Serrations | Counter Bored | Inch & Metric



Made from M-2 high speed steel. Hardened to Rc 60/62 with black oxide finish. Square edge grippers have serrations on one side. Counter bored hole for front mounting with a socket head or low head cap screw. See page 4 for tooth pattern specifications. See page 5 for mounting specifications.

INCH

Part #	B Height	C C' Bore Depth	D Chamfer	Tooth Pattern
3/8" Square - Counter Bored for #6 SHCS				
HSE-902-SS	1/4	.200	1/16 x 45°	EF
HSE-902-SS-SF	1/4	.200	1/16 x 45°	SF
HSE-903-SS	3/8	.200	1/16 x 45°	EF
HSE-903-SS-SF	3/8	.200	1/16 x 45°	SF
HSE-905-SS	1/2	.200	1/16 x 45°	EF
HSE-905-SS-SF	1/2	.200	1/16 x 45°	SF
1/2" Square - Counter Bored for #8 SHCS				
HSE-952-SS	1/4	.220	3/32 x 45°	Fine
HSE-952-SS-EF	1/4	.220	3/32 x 45°	EF
HSE-952-SS-SF	1/4	.220	3/32 x 45°	SF
HSE-953-SS	3/8	.220	3/32 x 45°	Fine
HSE-953-SS-EF	3/8	.220	3/32 x 45°	EF
HSE-953-SS-SF	3/8	.220	3/32 x 45°	SF
HSE-955-SS	1/2	.220	3/32 x 45°	Fine
HSE-955-SS-EF	1/2	.220	3/32 x 45°	EF
HSE-955-SS-SF	1/2	.220	3/32 x 45°	SF

Part #	B Height	C C' Bore Depth	D Chamfer	Tooth Pattern
5/8" Square - Counter Bored for 1/4" LHCS				
HSE-962-SS	1/4	.130	1/8 x 45°	Fine
HSE-962-SS-EF	1/4	.130	1/8 x 45°	EF
HSE-963-SS	3/8	.130	1/8 x 45°	Fine
HSE-963-SS-EF	3/8	.130	1/8 x 45°	EF
HSE-965-SS	1/2	.130	1/8 x 45°	Fine
HSE-965-SS-EF	1/2	.130	1/8 x 45°	EF
3/4" Square - Counter Bored for 5/16" LHCS				
HSE-972-SS	1/4	.161	1/8 x 45°	Fine
HSE-972-SS-EF	1/4	.161	1/8 x 45°	EF
HSE-973-SS	3/8	.161	1/8 x 45°	Fine
HSE-973-SS-EF	3/8	.161	1/8 x 45°	EF
HSE-975-SS	1/2	.161	1/8 x 45°	Fine
HSE-975-SS-EF	1/2	.161	1/8 x 45°	EF
1" Square - Counter Bored for 3/8" LHCS				
HSE-102-SS	1/4	.194	1/8 x 45°	Fine
HSE-102-SS-EF	1/4	.194	1/8 x 45°	EF
HSE-103-SS	3/8	.194	1/8 x 45°	Fine
HSE-103-SS-EF	3/8	.194	1/8 x 45°	EF
HSE-105-SS	1/2	.194	1/8 x 45°	Fine
HSE-105-SS-EF	1/2	.194	1/8 x 45°	EF

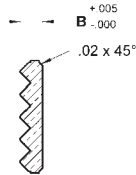
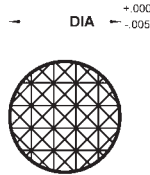
METRIC

Part #	B Height	C C' Bore Depth	D Chamfer	Tooth Pattern
10mm Square - Counter Bored for M3 SHCS				
MHSE-9106-SS	6	3.20	1.6 x 45°	EF
MHSE-9100-SS	10	3.20	1.6 x 45°	EF
12mm Square - Counter Bored for M4 SHCS				
MHSE-9126-SS	6	4.06	2.3 x 45°	Fine
MHSE-9120-SS	10	4.06	2.3 x 45°	Fine
MHSE-9122-SS	12	4.06	2.3 x 45°	Fine
16mm Square - Counter Bored for M6 LHCS				
MHSE-9166-SS	6	4.2	3.2 x 45°	Fine
MHSE-9160-SS	10	4.2	3.2 x 45°	Fine
MHSE-9162-SS	12	4.2	3.2 x 45°	Fine

Part #	B Height	C C' Bore Depth	D Chamfer	Tooth Pattern
20mm Square - Counter Bored for M8 LHCS				
MHSE-9206-SS	6	5.08	3.2 x 45°	Fine
MHSE-9200-SS	10	5.08	3.2 x 45°	Fine
MHSE-9202-SS	12	5.08	3.2 x 45°	Fine
25mm Square - Counter Bored for M10 LHCS				
MHSE-9250-SS	10	6.6	3.2 x 45°	Fine
MHSE-9252-SS	12	6.6	3.2 x 45°	Fine

CARBIDE PADS

Round Style | Solid Carbide Pad | Serrated | No Hole | Inch



Made from solid carbide for high wear resistance and serrated for additional gripping strength. Can be brazed or bonded in jigs, fixtures, clamps, etc. The bottom is chamfered for clearance in mounting pocket. See page 4 for tooth pattern specifications. See page 5 for mounting specifications.

INCH

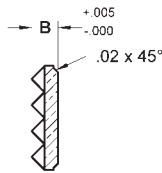
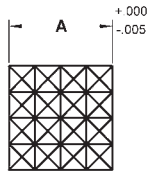
Part #	B Height	Tooth Pattern
1/4" Dia		
CC-1	1/8	EF
CC-1-SF	1/8	SF
5/16" Dia		
CC-2	1/8	EF
CC-2-SF	1/8	SF
CC-2-4	1/8	4 Point
3/8" Dia		
CC-3	1/8	Fine
CC-3-EF	1/8	EF
CC-3-4	1/8	4 Point

Part #	B Height	Tooth Pattern
7/16" Dia		
CC-437	1/8	Fine
CC-437-EF	1/8	EF
CC-437-4 *	5/32	4 Point
1/2" Dia		
CC-4	1/8	Fine
CC-4-EF	1/8	EF
CC-4-4	5/32	4 Point

* "B" dimension tolerance = +.002/-0.003

Part #	B Height	Tooth Pattern
5/8" Dia		
CC-5	1/8	Fine
CC-5-EF	1/8	EF
3/4" Dia		
CC-6	1/8	Fine
CC-6-EF	1/8	EF
CC-6X156-EF	5/32	EF
1" Dia		
CC-8-EF	5/32	EF

Square Style | Solid Carbide Pad | Serrated | No Hole | Inch



Made from solid carbide for high wear resistance and serrated for additional gripping strength. Can be brazed or bonded in jigs, fixtures, clamps, etc. The bottom is chamfered for clearance in mounting pocket. See page 4 for tooth pattern specifications. See page 5 for mounting specifications.

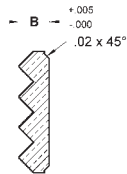
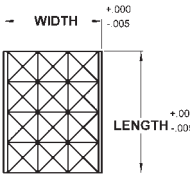
INCH

Part #	B Height	Tooth Pattern
3/8" Square		
CS-3	1/8	Fine
CS-3-EF	1/8	EF

Part #	B Height	Tooth Pattern
1/2" Square		
CS-4	1/8	Fine
CS-4-EF	1/8	EF
5/8" Square		
CS-5-EF	1/8	EF

Part #	B Height	Tooth Pattern
3/4" Square		
CS-6X125-EF	1/8	EF
CS-6-EF	5/32	EF
1" Square		
CS-8-EF	5/32	EF

Rectangle Style | Solid Carbide Pad | Serrated | No Hole | Inch



Made from solid carbide for high wear resistance and serrated for additional gripping strength. Can be brazed or bonded in jigs, fixtures, clamps, etc. The bottom is chamfered for clearance in mounting pocket. See page 4 for tooth pattern specifications. See page 5 for mounting specifications.

INCH

Part #	B Height	Tooth Pattern
3/8" x 1/4" Rectangle		
CR-2-EF	1/8	EF
1/2" x 13/32" Rectangle		
CR-870	1/8	Fine
CR-870-EF	1/8	EF
CR-870X156-EF	5/32	EF

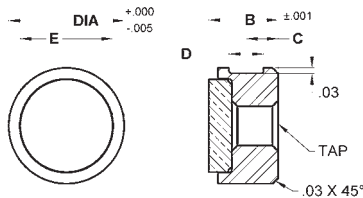
Part #	B Height	Tooth Pattern
29/64" x 13/32" Rectangle		
CR-127-4	1/8	4 Point
CR-127-12	1/8	Fine
CR-130-4	1/8	Straight
CR-145-5	1/8	Angular

Part #	B Height	Tooth Pattern
1" x 1/2" Rectangle		
CR-4-EF	3/16	EF
CR-4 *	3/16	Saw Tooth
1-1/2" x 3/4" Rectangle		
CR-6 *	1/4	Saw Tooth

* Parts have approximately 1/64 to 1/32 additional stock on blanks.

REST PADS

Carbide Tipped | Tapped | Inch



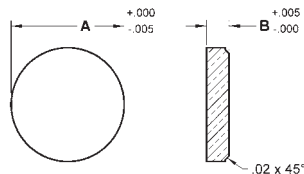
Constructed with a carbide pad brazed to a heat treated alloy steel body for better wear. Black oxide finish. Blind-hole tap for back side mounting. Flat on O.D. for set screw mounting. See page 5 for mounting specifications.

INCH

Part #	B Height	C Flat Pos.	D Flat Width	E Pad Dia.
3/8" Dia - #10-32 Tap				
CRP-40	3/8	11/64	3/16	5/16
CRP-405	1/2	15/64	3/16	5/16
1/2" Dia - #10-32 Tap				
CRP-50	3/8	11/64	3/16	3/8
CRP-53	1/2	15/64	3/16	3/8

Part #	B Height	C Flat Pos.	D Flat Width	E Pad Dia.
5/8" Dia - 1/4-28 Tap				
CRP-62	3/8	11/64	3/16	1/2
CRP-625	1/2	15/64	3/16	1/2
3/4" Dia - 1/4-28 Tap				
CRP-75	3/8	11/64	3/16	5/8
CRP-755	1/2	15/64	3/16	5/8
1" Dia - 1/4-28 Tap				
CRP-81	3/8	11/64	3/16	3/4

Solid Carbide | No Hole | Inch



Made from solid carbide for high wear resistance. Can be brazed or bonded in jigs, fixtures, clamps, etc. The bottom is chamfered for clearance in mounting pocket. See page 5 for mounting specifications.

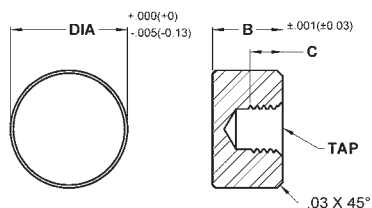
INCH

Part #	A Dia.	B Height
CC-1F	1/4	1/8
CC-2F	5/16	1/8
CC-3F	3/8	1/8
CC-4F	1/2	1/8

Part #	A Dia.	B Height
CC-5F	5/8	1/8
CC-6F	3/4	1/8
CC-8F	1	5/32

REST PADS

Steel | Tapped | Inch & Metric



Made from 8620 steel, carburized and hardened to Rc 58/60 with .050" case. Black oxide finish. Blind-hole tap for back side mounting. See page 5 for mounting specifications.

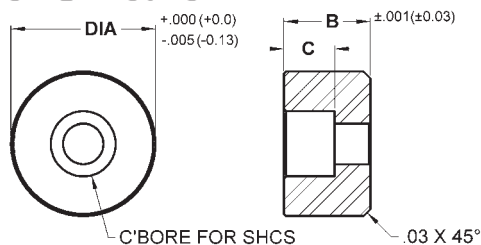
INCH

Part #	B Height	C Tap Depth
5/16" Dia - #8-32 Tap		
SRP-30	3/8	3/16
SRP-305	1/2	5/16
3/8" Dia - #10-32 Tap		
SRP-40	3/8	3/16
SRP-405	1/2	5/16
1/2" Dia - #10-32 Tap		
SRP-50	3/8	3/16
SRP-53	1/2	5/16
5/8" Dia - 1/4-28 Tap		
SRP-62	3/8	3/16
SRP-625	1/2	5/16
3/4" Dia - 1/4-28 Tap		
SRP-75	3/8	3/16
SRP-755	1/2	5/16
1" Dia - 1/4-28 Tap		
SRP-81	3/8	3/16
SRP-815	1/2	5/16

METRIC

Part #	B Height	C Tap Depth
8mm Dia - M4x0.7 Tap		
MSRP-080	10	5
MSRP-082	12	6.4
10mm Dia - M5x0.8 Tap		
MSRP-100	10	5
MSRP-102	12	6.4
12mm Dia - M5x0.8 Tap		
MSRP-120	10	5
MSRP-122	12	6.4
16mm Dia - M6x1.0 Tap		
MSRP-160	10	5
MSRP-162	12	6.4
20mm Dia - M6x1.0 Tap		
MSRP-200	10	5
MSRP-202	12	6.4
25mm Dia - M6x1.0 Tap		
MSRP-250	10	5
MSRP-252	12	6.4

Steel | Counter Bored | Inch & Metric



Made from 8620 steel, carburized and hardened to Rc 58/60 with .050" case. Black oxide finish. Counter bored hole for front mounting with a socket head cap screw. See page 5 for mounting specifications.

INCH

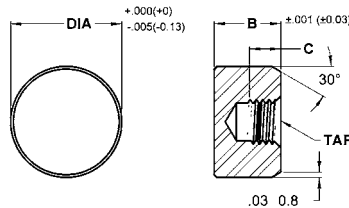
Part #	B Height	C C'BoRE Depth
3/8" Dia - Counter Bored for #6 SHCS		
SRP-40-C	3/8	3/16
SRP-405-C	1/2	3/16
1/2" Dia - Counter Bored for #8 SHCS		
SRP-50-C	3/8	7/32
SRP-53-C	1/2	7/32
5/8" Dia - Counter Bored for #8 SHCS		
SRP-62-C	3/8	7/32
SRP-625-C	1/2	7/32
3/4" Dia - Counter Bored for #10 SHCS		
SRP-75-C	3/8	1/4
SRP-755-C	1/2	1/4
1" Dia - Counter Bored for 1/4" SHCS		
SRP-81-C	3/8	9/32
SRP-815-C	1/2	9/32

METRIC

Part #	B Height	C C'BoRE Depth
10mm Dia - Counter Bored for M3 SHCS		
MSRP-100-C	10	5
MSRP-102-C	12	5
12mm Dia - Counter Bored for M4 SHCS		
MSRP-120-C	10	5.6
MSRP-122-C	12	5.6
16mm Dia - Counter Bored for M5 SHCS		
MSRP-160-C	10	6.6
MSRP-162-C	12	6.6
20mm Dia - Counter Bored for M6 SHCS		
MSRP-200-C	10	7.6
MSRP-202-C	12	7.6
25mm Dia - Counter Bored for M6 SHCS		
MSRP-250-C	10	7.6
MSRP-252-C	12	7.6

REST PADS

Stainless Steel | Tapped | Inch & Metric



Made from 17-4 stainless steel which provides high strength as well as protection against chemical and environmental corrosion. Heat treated to Rc 43/46. Blind-hole tap for back side mounting. See page 5 for mounting specifications.

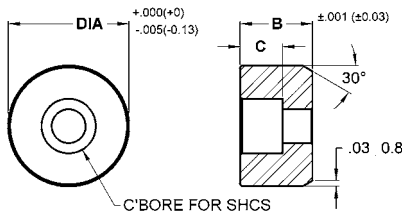
INCH

Part #	B Height	C Tap Depth
5/16" Dia - #8-32 Tap		
CSRP-30	3/8	3/16
CSRP-305	1/2	5/16
3/8" Dia - #10-32 Tap		
CSRP-40	3/8	3/16
CSRP-405	1/2	5/16
1/2" Dia - #10-32 Tap		
CSRP-50	3/8	3/16
CSRP-53	1/2	5/16
5/8" Dia - 1/4-28 Tap		
CSRP-62	3/8	3/16
CSRP-625	1/2	5/16
3/4" Dia - 1/4-28 Tap		
CSRP-75	3/8	3/16
CSRP-755	1/2	5/16
1" Dia - 1/4-28 Tap		
CSRP-81	3/8	3/16
CSRP-815	1/2	5/16

METRIC

Part #	B Height	C Tap Depth
8mm Dia - M4x0.7 Tap		
MCSRP-080	10	5
MCSRP-082	12	6.4
10mm Dia - M5x0.8 Tap		
MCSRP-100	10	5
MCSRP-102	12	6.4
12mm Dia - M5x0.8 Tap		
MCSRP-120	10	5
MCSRP-122	12	6.4
16mm Dia - M6x1.0 Tap		
MCSRP-160	10	5
MCSRP-162	12	6.4
20mm Dia - M6x1.0 Tap		
MCSRP-200	10	5
MCSRP-202	12	6.4
25mm Dia - M6x1.0 Tap		
MCSRP-250	10	5
MCSRP-252	12	6.4

Stainless Steel | Counter Bored | Inch & Metric



Made from 17-4 stainless steel which provides high strength as well as protection against chemical and environmental corrosion. Heat treated to Rc 43/46. Counter bored hole for front mounting with a socket head cap screw. See page 5 for mounting specifications.

INCH

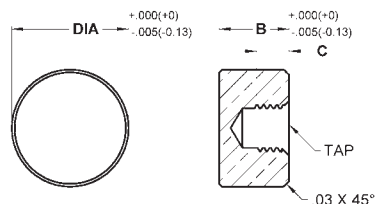
Part #	B Height	C C'Bore Depth
3/8" Dia - Counter Bored for #6 SHCS		
CSRP-40-C	3/8	3/16
CSRP-405-C	1/2	3/16
1/2" Dia - Counter Bored for #8 SHCS		
CSRP-50-C	3/8	7/32
CSRP-53-C	1/2	7/32
5/8" Dia - Counter Bored for #8 SHCS		
CSRP-62-C	3/8	7/32
CSRP-625-C	1/2	7/32
3/4" Dia - Counter Bored for #10 SHCS		
CSRP-75-C	3/8	1/4
CSRP-755-C	1/2	1/4
1" Dia - Counter Bored for 1/4" SHCS		
CSRP-81-C	3/8	9/32
CSRP-815-C	1/2	9/32

METRIC

Part #	B Height	C C'Bore Depth
10mm Dia - Counter Bored for M3 SHCS		
MCSRP-100-C	10	5
MCSRP-102-C	12	5
12mm Dia - Counter Bored for M4 SHCS		
MCSRP-120-C	10	5.6
MCSRP-122-C	12	5.6
16mm Dia - Counter Bored for M5 SHCS		
MCSRP-160-C	10	6.6
MCSRP-162-C	12	6.6
20mm Dia - Counter Bored for M6 SHCS		
MCSRP-200-C	10	7.6
MCSRP-202-C	12	7.6
25mm Dia - Counter Bored for M6 SHCS		
MCSRP-250-C	10	7.6
MCSRP-252-C	12	7.6

REST PADS

Delrin | Tapped | Inch & Metric



Made from white Delrin. Non-marring and non-absorbing. Blind-hole tap for back side mounting. See page 5 for mounting specifications.

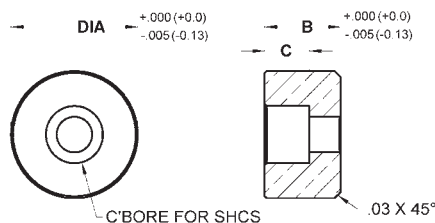
INCH

Part #	B Height	C Tap Depth
5/16" Dia - #8-32 Tap		
DRP-30	3/8	3/16
DRP-305	1/2	5/16
3/8" Dia - #10-32 Tap		
DRP-40	3/8	3/16
DRP-405	1/2	5/16
1/2" Dia - #10-32 Tap		
DRP-50	3/8	3/16
DRP-53	1/2	5/16
5/8" Dia - 1/4-28 Tap		
DRP-62	3/8	3/16
DRP-625	1/2	5/16
3/4" Dia - 1/4-28 Tap		
DRP-75	3/8	3/16
DRP-755	1/2	5/16
1" Dia - 1/4-28 Tap		
DRP-81	3/8	3/16
DRP-815	1/2	5/16

METRIC

Part #	B Height	C Tap Depth
8mm Dia - M4x0.7 Tap		
MDRP-080	10	5
MDRP-082	12	6.4
10mm Dia - M5x0.8 Tap		
MDRP-100	10	5
MDRP-102	12	6.4
12mm Dia - M5x0.8 Tap		
MDRP-120	10	5
MDRP-122	12	6.4
16mm Dia - M6x1.0 Tap		
MDRP-160	10	5
MDRP-162	12	6.4
20mm Dia - M6x1.0 Tap		
MDRP-200	10	5
MDRP-202	12	6.4
25mm Dia - M6x1.0 Tap		
MDRP-250	10	5
MDRP-252	12	6.4

Delrin | Counter Bored | Inch & Metric



Made from white Delrin. Non-marring and non-absorbing. Counter bored hole for front mounting with a socket head cap screw. See page 5 for mounting specifications.

INCH

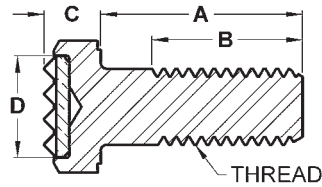
Part #	B Height	C C'Bore Depth
3/8" Dia - Counter Bored for #6 SHCS		
DRP-40-C	3/8	3/16
DRP-405-C	1/2	3/16
1/2" Dia - Counter Bored for #8 SHCS		
DRP-50-C	3/8	7/32
DRP-53-C	1/2	7/32
5/8" Dia - Counter Bored for #8 SHCS		
DRP-62-C	3/8	7/32
DRP-625-C	1/2	7/32
3/4" Dia - Counter Bored for #10 SHCS		
DRP-75-C	3/8	1/4
DRP-755-C	1/2	1/4
1" Dia - Counter Bored for 1/4" SHCS		
DRP-81-C	3/8	9/32
DRP-815-C	1/2	9/32

METRIC

Part #	B Height	C C'Bore Depth
10mm Dia - Counter Bored for M3 SHCS		
MDRP-100-C	10	5
MDRP-102-C	12	5
12mm Dia - Counter Bored for M4 SHCS		
MDRP-120-C	10	5.6
MDRP-122-C	12	5.6
16mm Dia - Counter Bored for M5 SHCS		
MDRP-160-C	10	6.6
MDRP-162-C	12	6.6
20mm Dia - Counter Bored for M6 SHCS		
MDRP-200-C	10	7.6
MDRP-202-C	12	7.6
25mm Dia - Counter Bored for M6 SHCS		
MDRP-250-C	10	7.6
MDRP-252-C	12	7.6

THREADED ADJUSTABLE GRIPPERS

Hex Head Style | Carbide Tipped | Inch & Metric



The threaded body allows the user to adjust the height of the gripper. The serrated carbide tip provides positive holding and wear resistance. The body is made from a Grade 8 fastener (metric are 10.9) with black oxide finish. The serrated carbide pad is brazed into a pocket in the head. See page 4 for tooth pattern specifications.

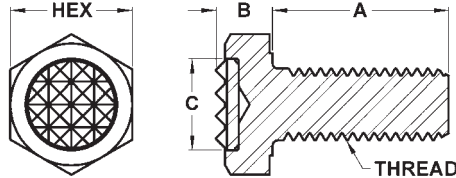
INCH

Part #	A Shank Length	B Thread Length	C Head Height	D Pad Dia.	Tooth Pattern
1/4-20 Threads - 7/16" Hex					
CTH-0200	1/2	1/2	13/64	5/16	EF
CTH-0250	1	7/8	13/64	5/16	EF
CTHF-0250	1	1	13/64	5/16	EF
CTH-0250 X 1.5	1-1/2	7/8	13/64	5/16	EF
CTHF-0250 X 1.5	1-1/2	1-1/2	13/64	5/16	EF
1/4-28 Threads - 7/16" Hex					
CTH-0280	1/2	1/2	13/64	5/16	EF
CTH-0281	1	7/8	13/64	5/16	EF
CTHF-0281	1	1	13/64	5/16	EF
CTH-0281 X 1.5	1-1/2	7/8	13/64	5/16	EF
CTHF-0281 X 1.5	1-1/2	1-1/2	13/64	5/16	EF
5/16-18 Threads - 1/2" Hex					
CTH-0310	1/2	1/2	1/4	3/8	Fine
CTH-0310-EF	1/2	1/2	1/4	3/8	EF
CTH-0312	1	1	1/4	3/8	Fine
CTH-0312-EF	1	1	1/4	3/8	EF
CTH-0312 X 1.5	1-1/2	1	1/4	3/8	Fine
CTHF-0312 X 1.5	1-1/2	1-1/2	1/4	3/8	Fine
CTH-0312 X 1.5-EF	1-1/2	1	1/4	3/8	EF
CTHF-0312 X 1.5-EF	1-1/2	1-1/2	1/4	3/8	EF
5/16-24 Threads - 1/2" Hex					
CTH-0320	1/2	1/2	1/4	3/8	Fine
CTH-0320-EF	1/2	1/2	1/4	3/8	EF
CTH-0321	1	1	1/4	3/8	Fine
CTH-0321-EF	1	1	1/4	3/8	EF
CTH-0321 X 1.5	1-1/2	1	1/4	3/8	Fine
CTHF-0321 X 1.5	1-1/2	1-1/2	1/4	3/8	Fine
CTH-0321 X 1.5-EF	1-1/2	1	1/4	3/8	EF
CTHF-0321 X 1.5-EF	1-1/2	1-1/2	1/4	3/8	EF
3/8-16 Threads - 9/16" Hex					
CTH-0370	1/2	1/2	9/32	1/2	Fine
CTH-0370-EF	1/2	1/2	9/32	1/2	EF
CTH-0375	1	1	9/32	1/2	Fine
CTH-0375-EF	1	1	9/32	1/2	EF
CTH-0375 X 1.5	1-1/2	1-1/8	9/32	1/2	Fine
CTHF-0375 X 1.5	1-1/2	1-1/2	9/32	1/2	Fine
CTH-0375 X 1.5-EF	1-1/2	1-1/8	9/32	1/2	EF
CTHF-0375 X 1.5-EF	1-1/2	1-1/2	9/32	1/2	EF
3/8-24 Threads - 9/16" Hex					
CTH-0230	1/2	1/2	9/32	1/2	Fine
CTH-0230-EF	1/2	1/2	9/32	1/2	EF
CTH-0231	1	1	9/32	1/2	Fine
CTH-0231-EF	1	1	9/32	1/2	EF
CTH-0231 X 1.5	1-1/2	1-1/8	9/32	1/2	Fine
CTHF-0231 X 1.5	1-1/2	1-1/2	9/32	1/2	Fine
CTH-0231 X 1.5-EF	1-1/2	1-1/8	9/32	1/2	EF
CTHF-0231 X 1.5-EF	1-1/2	1-1/2	9/32	1/2	EF

Part #	A Shank Length	B Thread Length	C Head Height	D Pad Dia.	Tooth Pattern
1/2-13 Threads - 3/4" Hex					
CTH-0510	1	1	23/64	5/8	Fine
CTH-0510-EF	1	1	23/64	5/8	EF
CTH-0515	1-1/2	1-1/2	23/64	5/8	Fine
CTH-0515-EF	1-1/2	1-1/2	23/64	5/8	EF
1/2-20 Threads - 3/4" Hex					
CTH-0240	1	1	23/64	5/8	Fine
CTH-0240-EF	1	1	23/64	5/8	EF
CTH-0500	1-1/2	1-1/2	23/64	5/8	Fine
CTH-0500-EF	1-1/2	1-1/2	23/64	5/8	EF
5/8-11 Threads - 15/16" Hex					
CTH-0625	1	1	7/16	3/4	Fine
CTH-0625-EF	1	1	7/16	3/4	EF
CTH-0625 X 2	2	1-1/2	7/16	3/4	Fine
CTHF-0625 X 2	2	2	7/16	3/4	Fine
CTH-0625 X 2-EF	2	1-1/2	7/16	3/4	EF
CTHF-0625 X 2-EF	2	2	7/16	3/4	EF
5/8-18 Threads - 15/16" Hex					
CTH-0620	1	1	7/16	3/4	Fine
CTH-0620-EF	1	1	7/16	3/4	EF
CTH-0620 X 2	2	1-1/2	7/16	3/4	Fine
CTHF-0620 X 2	2	2	7/16	3/4	Fine
CTH-0620 X 2-EF	2	1-1/2	7/16	3/4	EF
CTHF-0620 X 2-EF	2	2	7/16	3/4	EF
3/4-10 Threads - 1-1/8" Hex					
CTH-0755-EF	1	1	1/2	1	EF
CTH-0755 X 2.5-EF	2-1/2	1-3/4	1/2	1	EF
CTHF-0755 X 2.5-EF	2-1/2	2-1/2	1/2	1	EF
3/4-16 Threads - 1-1/8" Hex					
CTH-0750-EF	1	1	1/2	1	EF
CTH-0750 X 2.5-EF	2-1/2	1-3/4	1/2	1	EF
CTHF-0750 X 2.5-EF	2-1/2	2-1/2	1/2	1	EF

THREADED ADJUSTABLE GRIPPERS

Hex Head Style | Carbide Tipped | Inch & Metric (continued)

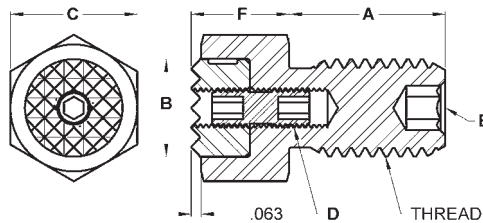


METRIC

Part #	A Shank Length	B Head Height	C Pad Dia.	Tooth Pattern
M6x1.00 Threads - 10mm Hex				
MCTH-06102	12	5	5/16	EF
MCTH-06100	25	5	5/16	EF
M8x1.25 Threads - 13mm Hex				
MCTH-08122	12	6.4	3/8	Fine
MCTH-08125X16	16	6.4	3/8	Fine
MCTH-08125	25	6.4	3/8	Fine
MCTH-08125X30	30	6.4	3/8	Fine
MCTH-08125X35	35	6.4	3/8	Fine
M10x1.25 Threads - 17mm Hex				
MCTH-10125	25	7.5	1/2	Fine
MCTH-10125X40	40	7.5	1/2	Fine

Part #	A Shank Length	B Head Height	C Pad Dia.	Tooth Pattern
M10x1.50 Threads - 17mm Hex				
MCTH-10152	12	7.5	1/2	Fine
MCTH-10150	25	7.5	1/2	Fine
MCTH-10150X40	40	7.5	1/2	Fine
M12x1.75 Threads - 19mm Hex				
MCTH-12175	25	8.7	5/8	Fine
MCTH-12175X40	40	8.7	5/8	Fine
M16x2.00 Threads - 24mm Hex				
MCTH-16200	35	11	3/4	Fine
MCTH-16200X50	50	11	3/4	Fine
M20x2.50 Threads - 30mm Hex				
MCTH-20250	40	13.7	1	EF
MCTH-20250X60	60	13.7	1	EF

AdjustaGrip™ Hex Head | Replaceable Pad | Inch



The replaceable gripper is held in place with a differential lock screw. The gripper can be replaced when worn or a different style gripper is required. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The parts listed below are for the housing unit and differential lock screw only and do not include a gripper. Grippers must be ordered separately. Use only with grippers that have a tapped through hole.

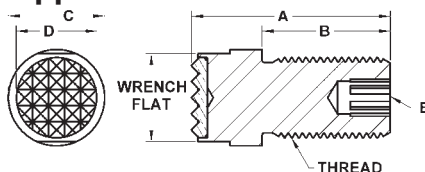
INCH

Part #	A Thread Length	B Use With Gripper Dia.	C Hex	D Int. Tap	E Int. Hex	F Head Height
3/8-16 Threads						
AJH-0370	1/2	3/8	9/16	#10-32 L.H.	3/16	1/2
AJH-0375	1	3/8	9/16	#10-32 L.H.	1/8	1/2
AJH-0375 X 1.5	1-1/2	3/8	9/16	#10-32 L.H.	1/8	1/2
3/8-24 Threads						
AJH-0230	1/2	3/8	9/16	#10-32 L.H.	3/16	1/2
AJH-0231	1	3/8	9/16	#10-32 L.H.	1/8	1/2
AJH-0231 X 1.5	1-1/2	3/8	9/16	#10-32 L.H.	1/8	1/2
1/2-13 Threads						
AJH-0510	1	1/2	11/16	#10-32 L.H.	3/16	5/8
AJH-0515	1-1/2	1/2	11/16	#10-32 L.H.	3/16	5/8
1/2-20 Threads						
AJH-0240	1	1/2	11/16	#10-32 L.H.	3/16	5/8
AJH-0500	1-1/2	1/2	11/16	#10-32 L.H.	3/16	5/8

Part #	A Thread Length	B Use With Gripper Dia.	C Hex	D Int. Tap	E Int. Hex	F Head Height
5/8-11 Threads						
AJH-0625 X 1	1	5/8	13/16	1/4-28 L.H.	1/4	5/8
AJH-0625 X 2	2	5/8	13/16	1/4-28 L.H.	1/4	5/8
5/8-18 Threads						
AJH-0620 X 1	1	5/8	13/16	1/4-28 L.H.	1/4	5/8
AJH-0620 X 2	2	5/8	13/16	1/4-28 L.H.	1/4	5/8
3/4-10 Threads						
AJH-0755 X 1	1	3/4	15/16	1/4-28 L.H.	5/16	5/8
AJH-0755 X 2.5	2-1/2	3/4	15/16	1/4-28 L.H.	5/16	5/8
3/4-16 Threads						
AJH-0750 X 1	1	3/4	15/16	1/4-28 L.H.	5/16	5/8
AJH-0750 X 2.5	2-1/2	3/4	15/16	1/4-28 L.H.	5/16	5/8

THREADED ADJUSTABLE GRIPPERS

Round Head Style | Carbide Tipped | Inch



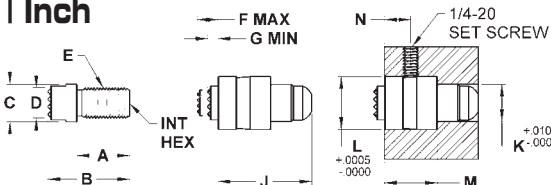
The threaded body allows the user to adjust the height of the gripper. The serrated carbide tip provides positive holding and wear resistance. The round head allows for additional clearance and has wrench flats for easy adjustments. The internal hex allows for adjustment from the backside. The body is made from heat-treated alloy steel with black oxide finish. The serrated carbide pad is brazed into a pocket in the head. See page 4 for tooth pattern specifications.

INCH

Part #	A OAL	B Thread Length	C Dia.	D Pad Dia.	E Int. Hex	Tooth Pattern
3/8-16 Threads						
AG-0370	15/16	9/16	1/2	3/8	1/8	Fine
AG-0370-EF	15/16	9/16	1/2	3/8	1/8	EF
AG-0375	1-3/8	1	1/2	3/8	1/8	Fine
AG-0375-EF	1-3/8	1	1/2	3/8	1/8	EF
AG-0375 X 1.5	1-7/8	1-1/2	1/2	3/8	1/8	Fine
AG-0375 X 1.5-EF	1-7/8	1-1/2	1/2	3/8	1/8	EF
3/8-24 Threads						
AG-0230	15/16	9/16	1/2	3/8	1/8	Fine
AG-0230-EF	15/16	9/16	1/2	3/8	1/8	EF
AG-0231	1-3/8	1	1/2	3/8	1/8	Fine
AG-0231-EF	1-3/8	1	1/2	3/8	1/8	EF
AG-0231 X 1.5	1-7/8	1-1/2	1/2	3/8	1/8	Fine
AG-0231 X 1.5-EF	1-7/8	1-1/2	1/2	3/8	1/8	EF
1/2-13 Threads						
AG-0510	1-3/8	7/8	5/8	1/2	3/16	Fine
AG-0510-EF	1-3/8	7/8	5/8	1/2	3/16	EF
AG-0515	2-1/16	1-1/2	5/8	1/2	3/16	Fine
AG-0515-EF	2-1/16	1-1/2	5/8	1/2	3/16	EF
1/2-20 Threads						
AG-0240	1-3/8	7/8	5/8	1/2	3/16	Fine
AG-0240-EF	1-3/8	7/8	5/8	1/2	3/16	EF
AG-0500	2-1/16	1-1/2	5/8	1/2	3/16	Fine
AG-0500-EF	2-1/16	1-1/2	5/8	1/2	3/16	EF

Part #	A OAL	B Thread Length	C Dia.	D Pad Dia.	E Int. Hex	Tooth Pattern
5/8-11 Threads						
AG-0625 X 1	1-9/16	1	3/4	5/8	1/4	Fine
AG-0625 X 1-EF	1-9/16	1	3/4	5/8	1/4	EF
AG-0625 X 2	2-9/16	2	3/4	5/8	1/4	Fine
AG-0625 X 2-EF	2-9/16	2	3/4	5/8	1/4	EF
5/8-18 Threads						
AG-0620 X 1	1-9/16	1	3/4	5/8	1/4	Fine
AG-0620 X 1-EF	1-9/16	1	3/4	5/8	1/4	EF
AG-0620 X 2	2-9/16	2	3/4	5/8	1/4	Fine
AG-0620 X 2-EF	2-9/16	2	3/4	5/8	1/4	EF
3/4-10 Threads						
AG-0755 X 1	1-9/16	1	7/8	3/4	5/16	Fine
AG-0755 X 1-EF	1-9/16	1	7/8	3/4	5/16	EF
AG-0755 X 2.5	3-1/16	2-1/2	7/8	3/4	5/16	Fine
AG-0755 X 2.5-EF	3-1/16	2-1/2	7/8	3/4	5/16	EF
3/4-16 Threads						
AG-0750 X 1	1-9/16	1	7/8	3/4	5/16	Fine
AG-0750 X 1-EF	1-9/16	1	7/8	3/4	5/16	EF
AG-0750 X 2.5	3-1/16	2-1/2	7/8	3/4	5/16	Fine
AG-0750 X 2.5-EF	3-1/16	2-1/2	7/8	3/4	5/16	EF

AccuGrip™ | Carbide Tipped | Inch



The Accugrip grippers are designed to fit into chuck jaws and allow the user to adjust the concentricity within the jaws. The complete Accugrip assembly consists of three components: Adjustable Gripper, Housing and Lock Screw. The housing is installed into the chuck jaws after the gripper assembly has been installed into the housing. The gripper assembly can be replaced when worn. The housing, gripper body and lock screw are made from heat-treated alloy steel. The gripper assembly is available with either a flat or serrated carbide tipped pad. The serrated grippers have fine serrations.

COMPLETE ACCUGRIP ASSEMBLY

Part #	Tooth Pattern	A	B	C	D	E Thread	F Max	G Min	J
ACG-0230-F	Flat	17/32	15/16	.499	3/8	3/8-24	9/32	5/32	1
ACG-0230-S	Serrated	17/32	15/16	.499	3/8	3/8-24	9/32	5/32	1
ACG-0240-F	Flat	7/8	1-3/8	.624	1/2	1/2-20	5/16	3/16	1-9/16
ACG-0240-S	Serrated	7/8	1-3/8	.624	1/2	1/2-20	5/16	3/16	1-9/16

MOUNTING DIMENSIONS

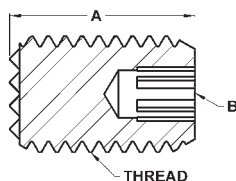
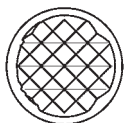
Part #	K	L	M	N
ACG-0230-F	1/2	.625	11/16	13/32
ACG-0230-S	1/2	.625	11/16	13/32
ACG-0240-F	21/32	.875	7/8	7/16
ACG-0240-S	21/32	.875	7/8	7/16

REPLACEMENT PARTS

Gripper Assembly Only	Housing Only	Lockscrew Only
ACG-0230-1S	ACG-0230-2	ACG-0230-3
ACG-0230-1F	ACG-0230-2	ACG-0230-3
ACG-0240-1S	ACG-0240-2	ACG-0240-3
ACG-0240-1F	ACG-0240-2	ACG-0240-3

THREADED ADJUSTABLE GRIPPERS

Threaded Body Style | Tool Steel | Inch & Metric



The threaded body allows the user to adjust the position of the gripper. The internal hex allows for adjustment from the backside. The serrated gripper provides positive holding. Made from M-2 high speed steel and hardened to Rc 55/58 with black oxide finish. See page 4 for tooth pattern specifications.

INCH

Part #	A Length	B Int. Hex	Tooth Pattern
3/8-16 Threads			
HS-0370	1/2	1/8	EF
HS-0371	1	1/8	EF
HS-0375	1-1/2	1/8	EF
3/8-24 Threads			
HS-0230	1/2	1/8	EF
HS-0231	1	1/8	EF
HS-0235	1-1/2	1/8	EF
1/2-13 Threads			
HS-0510	1	3/16	Fine
HS-0515	1-1/2	3/16	Fine
1/2-20 Threads			
HS-0240	1	3/16	Fine
HS-0500	1-1/2	3/16	Fine

Part #	A Length	B Int. Hex	Tooth Pattern
5/8-11 Threads			
HS-0625 X 1	1	1/4	Fine
HS-0625	1-1/2	1/4	Fine
5/8-18 Threads			
HS-0620 X 1	1	1/4	Fine
HS-0620	1-1/2	1/4	Fine
3/4-10 Threads			
HS-0755 X 1	1	5/16	Fine
HS-0755	1-1/2	5/16	Fine
3/4-16 Threads			
HS-0750 X 1	1	5/16	Fine
HS-0750	1-1/2	5/16	Fine

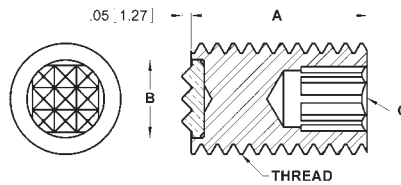
METRIC

Part #	A Length	B Int. Hex	Tooth Pattern
M8x1.25 Threads			
MHS-08125 X 25	25	3	SF
MHS-08125 X 50	50	3	SF
M10x1.50 Threads			
MHS-10150 X 25	25	3	EF
MHS-10150 X 40	40	3	EF
M12x1.75 Threads			
MHS-12175 X 25	25	5	Fine
MHS-12175 X 40	40	5	Fine

Part #	A Length	B Int. Hex	Tooth Pattern
M16x2.00 Threads			
MHS-16200 X 25	25	6	Fine
MHS-16200 X 40	40	6	Fine
M20x2.50 Threads			
MHS-20250 X 25	25	8	Fine
MHS-20250 X 40	40	8	Fine

THREADED ADJUSTABLE GRIPPERS

Threaded Body Style | Carbide Tipped | Inch & Metric



The threaded body allows the user to adjust the position of the gripper. The internal hex allows for adjustment from the backside. The serrated carbide tip provides positive holding and wear resistance. The body is made from alloy steel and hardened to Rc 43/46 with black oxide finish. The serrated carbide pad is brazed into a pocket in the head. See page 4 for tooth pattern specifications.

INCH

Part #	A Thread Length	B Pad Dia.	C Int. Hex	Tooth Pattern
3/8-16 Threads				
PG-0370	1/2	1/4	3/16	EF
PG-0375	1	1/4	3/16	EF
PG-0375 X 2	2	1/4	3/16	EF
PG-0375 X 3	3	1/4	3/16	EF
3/8-24 Threads				
PG-0230	1/2	1/4	3/16	EF
PG-0231	1	1/4	3/16	EF
PG-0231 X 1.5	1-1/2	1/4	3/16	EF
PG-0231 X 2	2	1/4	3/16	EF
PG-0231 X 3	3	1/4	3/16	EF
1/2-13 Threads				
PG-0513	3/4	3/8	1/4	Fine
PG-0513-4	3/4	3/8	1/4	4 Point
PG-0513-EF	3/4	3/8	1/4	EF
PG-0510	1	3/8	1/4	Fine
PG-0510-EF	1	3/8	1/4	EF
PG-0510-4	1	3/8	1/4	4 Point
PG-0510 X 2	2	3/8	1/4	Fine
PG-0510 X 2-EF	2	3/8	1/4	EF
PG-0510 X 2-4	2	3/8	1/4	4 Point
PG-0510 X 3	3	3/8	1/4	Fine
PG-0510 X 3-EF	3	3/8	1/4	EF
PG-0510 X 3-4	3	3/8	1/4	4 Point

Part #	A Thread Length	B Pad Dia.	C Int. Hex	Tooth Pattern
1/2-20 Threads				
PG-0503	3/4	3/8	1/4	Fine
PG-0503-4	3/4	3/8	1/4	4 Point
PG-0503-EF	3/4	3/8	1/4	EF
PG-0500	1	3/8	1/4	Fine
PG-0500-EF	1	3/8	1/4	EF
PG-0500-4	1	3/8	1/4	4 Point
PG-0500 X 2	2	3/8	1/4	Fine
PG-0500 X 2-EF	2	3/8	1/4	EF
PG-0500 X 2-4	2	3/8	1/4	4 Point
PG-0500 X 3	3	3/8	1/4	Fine
PG-0500 X 3-EF	3	3/8	1/4	EF
PG-0500 X 3-4	3	3/8	1/4	4 Point
5/8-11 Threads				
PG-0625	1	7/16	5/16	Fine
PG-0625-EF	1	7/16	5/16	EF
PG-0625-4	1	7/16	5/16	4 Point
PG-0625 X 2	2	7/16	5/16	Fine
PG-0625 X 2-EF	2	7/16	5/16	EF
PG-0625 X 2-4	2	7/16	5/16	4 Point
PG-0625 X 3	3	7/16	5/16	Fine
PG-0625 X 3-EF	3	7/16	5/16	EF
PG-0625 X 3-4	3	7/16	5/16	4 Point

Part #	A Thread Length	B Pad Dia.	C Int. Hex	Tooth Pattern
5/8-18 Threads				
PG-0620	1	1/2	5/16	Fine
PG-0620-EF	1	1/2	5/16	EF
PG-0620-4	1	1/2	5/16	4 Point
PG-0620 X 1.75	1-3/4	1/2	5/16	Fine
PG-0620 X 1.75-EF	1-3/4	1/2	5/16	EF
PG-0620 X 1.75-4	1-3/4	1/2	5/16	4 Point
PG-0620 X 2	2	1/2	5/16	Fine
PG-0620 X 2-EF	2	1/2	5/16	EF
PG-0620 X 2-4	2	1/2	5/16	4 Point
PG-0620 X 3	3	1/2	5/16	Fine
PG-0620 X 3-EF	3	1/2	5/16	EF
PG-0620 X 3-4	3	1/2	5/16	4 Point
3/4-10 Threads				
PG-0755	1	1/2	3/8	Fine
PG-0755-EF	1	1/2	3/8	EF
PG-0755-4	1	1/2	3/8	4 Point
PG-0755 X 2	2	1/2	3/8	Fine
PG-0755 X 2-EF	2	1/2	3/8	EF
PG-0755 X 2-4	2	1/2	3/8	4 Point
PG-0755 X 3	3	1/2	3/8	Fine
PG-0755 X 3-EF	3	1/2	3/8	EF
PG-0755 X 3-4	3	1/2	3/8	4 Point
3/4-16 Threads				
PG-0750	1	1/2	3/8	Fine
PG-0750-EF	1	1/2	3/8	EF
PG-0750-4	1	1/2	3/8	4 Point
PG-0750 X 2	2	1/2	3/8	Fine
PG-0750 X 2-EF	2	1/2	3/8	EF
PG-0750 X 2-4	2	1/2	3/8	4 Point
PG-0750 X 3	3	1/2	3/8	Fine
PG-0750 X 3-EF	3	1/2	3/8	EF
PG-0750 X 3-4	3	1/2	3/8	4 Point

METRIC

Part #	A Thread Length	B Pad Dia.	C Int. Hex	Tooth Pattern
M10x1.50 Threads				
MPG-10150	25	1/4	5	EF
MPG-10150 X 50	50	1/4	5	EF
M12x1.75 Threads				
MPG-12175-4	25	5/16	6	4 Point
MPG-12175	25	5/16	6	EF
MPG-12175 X 50-4	50	5/16	6	4 Point
MPG-12175 X 50	50	5/16	6	EF

Part #	A Thread Length	B Pad Dia.	C Int. Hex	Tooth Pattern
M16x2.00 Threads				
MPG-16200-4	25	7/16	8	4 Point
MPG-16200	25	7/16	8	Fine
MPG-16200 X 50-4	50	7/16	8	4 Point
MPG-16200 X 50	50	7/16	8	Fine

Part #	A Thread Length	B Pad Dia.	C Int. Hex	Tooth Pattern
M20x2.50 Threads				
MPG-20250-4	25	1/2	10	4 Point
MPG-20250	25	1/2	10	Fine
MPG-20250 X 50-4	50	1/2	10	4 Point
MPG-20250 X 50	50	1/2	10	Fine

Swivots® Replaceable Swivel Ball Style

These Replaceable Ball Style Swivots® are found on the following pages.

REPLACEABLE BALLS

Sof-Top Cone
Urethane Surface
Stainless



Flat Cone
Delrin



Flat Cone
Stainless



**Abrasive
Diamond Cone**
Stainless



Serrated
Tool Steel



Flat
Delrin



Flat
Tool Steel



VITON O-RING



HOUSINGS



Base Design



Hex Head
Design



Threaded
Body Design

Load Calculator

To calculate the load on the contact surface, divide the torque applied (in/lbs) by a factor shown below. Assumes no lubrication threaded into steel. Use as a guideline only.

Note: Contact surface load calculator does not apply for serrated contact pieces.

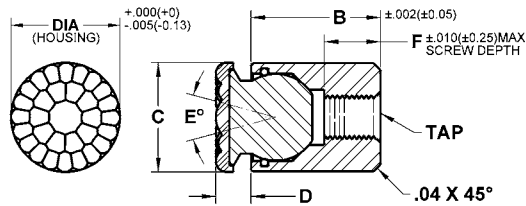
INCH			
Thread	Factor	Thread	Factor
#10-24	0.036	1/2-13	0.093
#10-32	0.035	1/2-20	0.091
1/4-20	0.047	5/8-11	0.116
1/4-28	0.046	5/8-18	0.113
5/16-18	0.059	3/4-10	0.138
5/16-24	0.058	3/4-16	0.135
3/8-16	0.070	1-8	0.183
3/8-24	0.068	1-14	0.180

METRIC			
Thread	Factor	Thread	Factor
M6x1.00	0.044	M16x2.00	0.116
M8x1.25	0.058	M20x2.50	0.144
M10x1.50	0.073	M24x3.00	0.173
M12x1.75	0.087		

- These Replaceable Ball Style Swivots are a modular component system that allows the ball to swivel, tilt, pivot, grip, hold, position or secure work pieces. The ball rotates 360 degrees and tilts at varying degrees in any direction from the centerline.
- The different housing styles allows for a variety of mounting options.
- These Replaceable Ball Style Swivots allow you to easily change the ball when worn or another style is needed for an application.
- Unique design prevents the ball from exceeding the specified degree of swivel - preventing the ball from rolling over in the housing.
- The ball is held in place with a Viton O-ring which allows the ball to be easily changed and keeps out dirt and other contaminants.
- Replacement balls and O-rings can be ordered separately. It is recommended the O-ring be replaced when the ball is replaced. Please call for replacement parts.

SWIVOTS® - REPLACEABLE SWIVEL BALL

Base Design | Stainless Ball | Inch & Metric Sof-Top Urethane Surface



Cylindrical body allows for installation in tight areas. The housing is tapped for backside fastening. The replaceable ball swivels to allow for self-alignment on uneven surfaces. A Viton O-ring holds the ball in place while keeping contaminants out and providing smooth ball movement. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The urethane surface is permanently bonded to a 300 series stainless steel ball. The non-marking, non-staining urethane provides excellent protection against damage on delicate work surfaces. The “bubbled” texture of the urethane top offers firm holding and allows air to escape so no suction is created between the contact surface and the top of the rest pad as it is compressed. Because the top is made of urethane it offers superior abrasion and wear resistance. They are available in three durometers to meet a wide variety of application needs. Replacement balls and O-rings can be ordered separately. See page 34 for diagram of components. Visit www.fairlaneproducts.com for compression load ratings. To order part, add desired durometer (xx) to the part number. Sample BBU-100-FC-35UR.

INCH

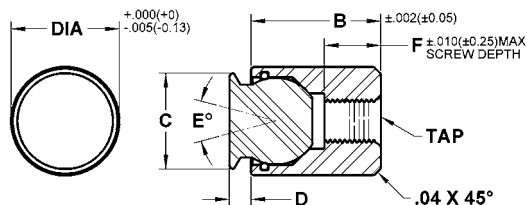
Part #	Dia.	Tap	B Length	C Contact Dia.	D Stand Off	E Degree Swivel	F Thread Depth	Ball Dia.	Urethane Thickness	xx = Durometer
BBU-100-FC-xxUR	3/8	#4-40	5/16	.315	.143	28	1/4	3/16	.08	35 / 60 / 80
BBU-105-FC-xxUR	3/8	#4-40	7/16	.315	.143	28	5/16	3/16	.08	35 / 60 / 80
BBU-107-FC-xxUR	3/8	#4-40	11/16	.315	.143	28	5/16	3/16	.08	35 / 60 / 80
BBU-200-FC-xxUR	7/16	#8-32	3/8	.394	.174	28	5/32	9/32	.08	35 / 60 / 80
BBU-201-FC-xxUR	7/16	#8-32	15/16	.394	.174	28	1/2	9/32	.08	35 / 60 / 80
BBU-300-FC-xxUR	1/2	#10-32	1/2	.512	.205	28	5/32	3/8	.08	35 / 60 / 80
BBU-301-FC-xxUR	1/2	#10-32	1	.512	.205	28	5/8	3/8	.08	35 / 60 / 80
BBU-500-FC-xxUR	5/8	1/4-28	3/4	.630	.205	28	1/4	1/2	.08	35 / 60 / 80
BBU-600-FC-xxUR	13/16	5/16-24	7/8	.827	.236	32	11/32	5/8	.08	35 / 60 / 80
BBU-700-FC-xxUR	15/16	3/8-24	7/8	.906	.236	32	9/32	3/4	.08	35 / 60 / 80

METRIC

Part #	Dia.	Tap	B Length	C Contact Dia.	D Stand Off	E Degree Swivel	F Thread Depth	Ball Dia.	Urethane Thickness	xx = Durometer
MBBU-1012-FC-xxUR	10	M4X0.7	10.5	10	4	28	3.5	7	2	35 / 60 / 80
MBBU-1025-FC-xxUR	10	M4X0.7	23.5	10	4	28	9	7	2	35 / 60 / 80
MBBU-1316-FC-xxUR	13	M5X0.8	14.5	13	5	28	6.5	10	2	35 / 60 / 80
MBBU-1325-FC-xxUR	13	M5X0.8	23.5	13	5	28	9	10	2	35 / 60 / 80
MBBU-1722-FC-xxUR	17	M6X1.0	18	16	5	28	7.5	13	2	35 / 60 / 80
MBBU-1924-FC-xxUR	19	M8X1.25	20	21	6	24	8.5	15	2	35 / 60 / 80
MBBU-2428-FC-xxUR	24	M10X1.5	24	23	6	24	9	20	2	35 / 60 / 80

SWIVOTS® - REPLACEABLE SWIVEL BALL

Base Design | Flat Cone | Inch & Metric
Delrin | Stainless | Diamond Surface



Cylindrical body allows for installation in tight areas. The housing is tapped for backside fastening. The replaceable ball swivels to allow for self-alignment on uneven surfaces. The flat cone design provides a large contact surface for greater force distribution. A Viton O-ring holds the ball in place while keeping contaminants out and providing smooth ball movement. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The delrin ball is made from non-marring white delrin. The stainless ball is made from 300 series stainless steel. The diamond style has a diamond abrasive surface that is permanently fused to a 300 series stainless steel pad. The surface texture is comparable to a 100 grit abrasive. They are ideal for holding smooth or slippery applications with a minimum of clamping pressure. Individual diamond particles transfer holding pressure to a very small and well distributed area, providing superior holding with minimal surface marking. The diamond surface provides unparalleled wear resistance. Replacement balls and O-rings can be ordered separately. See page 34 for diagram of components.

INCH

Delrin Part #	Stainless Part #	Diamond Part #	Dia.	Tap	B Length	C Contact Dia.	D Stand Off	E Degree Swivel	F Thread Depth	Ball Dia.	Load Rating Lbs.*
BBU-100-DC	BBU-100-FC	BBU-100-FC-DS	3/8	#4-40	5/16	.236	.063	28	1/4	3/16	1,835
BBU-105-DC	BBU-105-FC	BBU-105-FC-DS	3/8	#4-40	7/16	.236	.063	28	5/16	3/16	1,835
BBU-107-DC	BBU-107-FC	BBU-107-FC-DS	3/8	#4-40	11/16	.236	.063	28	5/16	3/16	1,835
BBU-200-DC	BBU-200-FC	BBU-200-FC-DS	7/16	#8-32	3/8	.315	.094	28	5/32	9/32	3,339
BBU-201-DC	BBU-201-FC	BBU-201-FC-DS	7/16	#8-32	15/16	.315	.094	28	1/2	9/32	3,339
BBU-300-DC	BBU-300-FC	BBU-300-FC-DS	1/2	#10-32	1/2	.433	.125	28	5/32	3/8	4,697
BBU-301-DC	BBU-301-FC	BBU-301-FC-DS	1/2	#10-32	1	.433	.125	28	5/8	3/8	4,697
BBU-500-DC	BBU-500-FC	BBU-500-FC-DS	5/8	1/4-28	3/4	.551	.125	28	1/4	1/2	5,849
BBU-600-DC	BBU-600-FC	BBU-600-FC-DS	13/16	5/16-24	7/8	.748	.156	32	11/32	5/8	10,925
BBU-700-DC	BBU-700-FC	BBU-700-FC-DS	15/16	3/8-24	7/8	.827	.156	32	9/32	3/4	13,325

*Load ratings do not apply to the delrin ball styles.

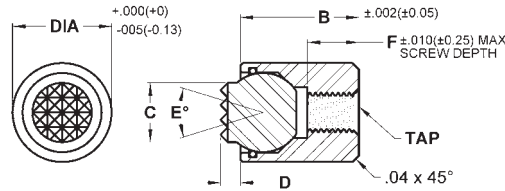
METRIC

Delrin Part #	Stainless Part #	Diamond Part #	Dia.	Tap	B Length	C Contact Dia.	D Stand Off	E Degree Swivel	F Thread Depth	Ball Dia.	Load Rating Lbs.*
MBBU-1012-DC	MBBU-1012-FC	MBBU-1012-FC-DS	10	M4X0.7	10.5	8	2	28	3.5	7	2,585
MBBU-1025-DC	MBBU-1025-FC	MBBU-1025-FC-DS	10	M4X0.7	23.5	8	2	28	9	7	2,585
MBBU-1316-DC	MBBU-1316-FC	MBBU-1316-FC-DS	13	M5X0.8	14.5	11	3	28	6.5	10	4,452
MBBU-1325-DC	MBBU-1325-FC	MBBU-1325-FC-DS	13	M5X0.8	23.5	11	3	28	9	10	4,452
MBBU-1722-DC	MBBU-1722-FC	MBBU-1722-FC-DS	17	M6X1.0	18	14	3	28	7.5	13	6,170
MBBU-1924-DC	MBBU-1924-FC	MBBU-1924-FC-DS	19	M8X1.25	20	19	4	24	8.5	15	8,688
MBBU-2428-DC	MBBU-2428-FC	MBBU-2428-FC-DS	24	M10X1.5	24	21	4	24	9	20	13,117

*Load ratings do not apply to the delrin ball styles.

SWIVOTS® - REPLACEABLE SWIVEL BALL

Base Design | Serrated | Inch & Metric Tool Steel



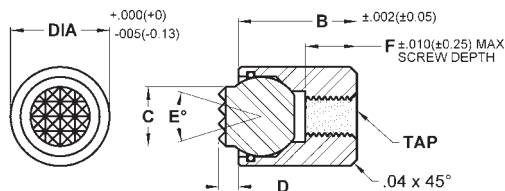
Cylindrical body allows for installation in tight areas. The housing is tapped for backside fastening. The replaceable serrated ball swivels to allow for self-alignment on uneven surfaces. A Viton O-ring holds the ball in place while keeping contaminants out and providing smooth ball movement. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The replaceable ball is made from M-2 high speed steel heat treated to Rc 60/62. Replacement balls and O-rings can be ordered separately. See page 34 for diagram of components. See page 4 for tooth pattern specifications.

INCH

Part #	Dia.	Tap	B Length	C Contact Dia.	D Stand Off	E Degree Swivel	F Thread Depth	Ball Dia.	Tooth Pattern	Load Rating Lbs.
BBU-100-S	3/8	#4-40	5/16	5/32	1/16	28	1/4	3/16	SF	1,835
BBU-105-S	3/8	#4-40	7/16	5/32	1/16	28	5/16	3/16	SF	1,835
BBU-107-S	3/8	#4-40	11/16	5/32	1/16	28	5/16	3/16	SF	1,835
BBU-200-S	7/16	#8-32	3/8	1/4	1/16	28	5/32	9/32	SF	3,339
BBU-200-S-T	7/16	#8-32	3/8	1/4	1/8	28	5/32	9/32	SF	3,339
BBU-201-S	7/16	#8-32	15/16	1/4	1/16	28	1/2	9/32	SF	3,339
BBU-201-S-T	7/16	#8-32	15/16	1/4	1/8	28	1/2	9/32	SF	3,339
BBU-300-S	1/2	#10-32	1/2	5/16	1/16	28	5/32	3/8	EF	4,697
BBU-300-S-T	1/2	#10-32	1/2	5/16	1/8	28	5/32	3/8	EF	4,697
BBU-300-SF	1/2	#10-32	1/2	5/16	1/16	28	5/32	3/8	SF	4,697
BBU-300-SF-T	1/2	#10-32	1/2	5/16	1/8	28	5/32	3/8	SF	4,697
BBU-301-S	1/2	#10-32	1	5/16	1/16	28	5/8	3/8	EF	4,697
BBU-301-S-T	1/2	#10-32	1	5/16	1/8	28	5/8	3/8	EF	4,697
BBU-301-SF	1/2	#10-32	1	5/16	1/16	28	5/8	3/8	SF	4,697
BBU-301-SF-T	1/2	#10-32	1	5/16	1/8	28	5/8	3/8	SF	4,697
BBU-500-S	5/8	1/4-28	3/4	3/8	1/8	40	1/4	1/2	EF	5,849
BBU-500-S-T	5/8	1/4-28	3/4	3/8	1/4	40	1/4	1/2	EF	5,849
BBU-500-SF	5/8	1/4-28	3/4	3/8	1/8	40	1/4	1/2	SF	5,849
BBU-500-SF-T	5/8	1/4-28	3/4	3/8	1/4	40	1/4	1/2	SF	5,849
BBU-600-S	13/16	5/16-24	7/8	1/2	1/8	40	11/32	5/8	Fine	10,925
BBU-600-S-T	13/16	5/16-24	7/8	1/2	1/4	40	11/32	5/8	Fine	10,925
BBU-600-EF	13/16	5/16-24	7/8	1/2	1/8	40	11/32	5/8	EF	10,925
BBU-600-EF-T	13/16	5/16-24	7/8	1/2	1/4	40	11/32	5/8	EF	10,925
BBU-600-SF	13/16	5/16-24	7/8	1/2	1/8	40	11/32	5/8	SF	10,925
BBU-600-SF-T	13/16	5/16-24	7/8	1/2	1/4	40	11/32	5/8	SF	10,925
BBU-700-S	15/16	3/8-24	7/8	5/8	1/8	34	9/32	3/4	Fine	13,325
BBU-700-S-T	15/16	3/8-24	7/8	5/8	1/4	34	9/32	3/4	Fine	13,325
BBU-700-EF	15/16	3/8-24	7/8	5/8	1/8	34	9/32	3/4	EF	13,325
BBU-700-EF-T	15/16	3/8-24	7/8	5/8	1/4	34	9/32	3/4	EF	13,325

SWIVOTS® - REPLACEABLE SWIVEL BALL

Base Design | Serrated | Inch & Metric (continued) Tool Steel

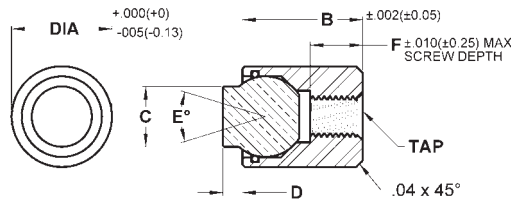


METRIC

Part #	Dia.	Tap	B Length	C Contact Dia.	D Stand Off	E Degree Swivel	F Thread Depth	Ball Dia.	Tooth Pattern	Load Rating Lbs.
MBBU-1012-S	10	M4X0.7	10.5	6	1.5	28	3.5	7	SF	2,585
MBBU-1012-S-T	10	M4X0.7	10.5	6	3	28	3.5	7	SF	2,585
MBBU-1025-S	10	M4X0.7	23.5	6	1.5	28	9	7	SF	2,585
MBBU-1025-S-T	10	M4X0.7	23.5	6	3	28	9	7	SF	2,585
MBBU-1316-S	13	M5X0.8	14.5	8.5	1.5	24	6.5	10	EF	4,452
MBBU-1316-S-T	13	M5X0.8	14.5	8.5	3	24	6.5	10	EF	4,452
MBBU-1325-S	13	M5X0.8	23.5	8.5	1.5	24	9	10	EF	4,452
MBBU-1325-S-T	13	M5X0.8	23.5	8.5	3	24	9	10	EF	4,452
MBBU-1722-S	17	M6X1.0	18	10	4	42	7.5	13	EF	6,170
MBBU-1722-S-T	17	M6X1.0	18	10	6	42	7.5	13	EF	6,170
MBBU-1924-S	19	M8X1.25	20	12	4	45	8.5	15	Fine	8,688
MBBU-1924-S-T	19	M8X1.25	20	12	6	45	8.5	15	Fine	8,688
MBBU-2428-S	24	M10X1.5	24	16	4	40	9	20	Fine	13,117
MBBU-2428-S-T	24	M10X1.5	24	16	6	40	9	20	Fine	13,117

SWIVOTS® - REPLACEABLE SWIVEL BALL

Base Design | Flat Ball | Inch & Metric Delrin | Tool Steel



Cylindrical body allows for installation in tight areas. The housing is tapped for backside fastening. The replaceable flat ball swivels to allow for self-alignment on uneven surfaces. A Viton O-ring holds the ball in place while keeping contaminants out and providing smooth ball movement. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The delrin ball is made from non-marring white delrin. The steel ball is made from M-2 high speed steel heat treated to Rc 60/62. Replacement balls and O-rings can be ordered separately. See page 34 for diagram of components.

INCH

Delrin Part #	Steel Part #	Dia.	Tap	B Length	C Contact Dia.	D Stand Off	E Degree Swivel	F Thread Depth	Ball Dia.	Load Rating Lbs*
BBU-100-D	BBU-100-F	3/8	#4-40	5/16	5/32	1/16	28	1/4	3/16	1,835
BBU-105-D	BBU-105-F	3/8	#4-40	7/16	5/32	1/16	28	5/16	3/16	1,835
BBU-107-D	BBU-107-F	3/8	#4-40	11/16	5/32	1/16	28	5/16	3/16	1,835
BBU-200-D	BBU-200-F	7/16	#8-32	3/8	1/4	1/16	28	5/32	9/32	3,339
BBU-200-D-T	BBU-200-F-T	7/16	#8-32	3/8	1/4	1/8	28	5/32	9/32	3,339
BBU-201-D	BBU-201-F	7/16	#8-32	15/16	1/4	1/16	28	1/2	9/32	3,339
BBU-201-D-T	BBU-201-F-T	7/16	#8-32	15/16	1/4	1/8	28	1/2	9/32	3,339
BBU-300-D	BBU-300-F	1/2	#10-32	1/2	5/16	1/16	28	5/32	3/8	4,697
BBU-300-D-T	BBU-300-F-T	1/2	#10-32	1/2	5/16	1/8	28	5/32	3/8	4,697
BBU-301-D	BBU-301-F	1/2	#10-32	1	5/16	1/16	28	5/8	3/8	4,697
BBU-301-D-T	BBU-301-F-T	1/2	#10-32	1	5/16	1/8	28	5/8	3/8	4,697
BBU-500-D	BBU-500-F	5/8	1/4-28	3/4	3/8	1/8	40	1/4	1/2	5,849
BBU-500-D-T	BBU-500-F-T	5/8	1/4-28	3/4	3/8	1/4	40	1/4	1/2	5,849
BBU-600-D	BBU-600-F	13/16	5/16-24	7/8	1/2	1/8	40	11/32	5/8	10,925
BBU-600-D-T	BBU-600-F-T	13/16	5/16-24	7/8	1/2	1/4	40	11/32	5/8	10,925
BBU-700-D	BBU-700-F	15/16	3/8-24	7/8	5/8	1/8	34	9/32	3/4	13,325
BBU-700-D-T	BBU-700-F-T	15/16	3/8-24	7/8	5/8	1/4	34	9/32	3/4	13,325

*Load ratings do not apply to the delrin ball styles.

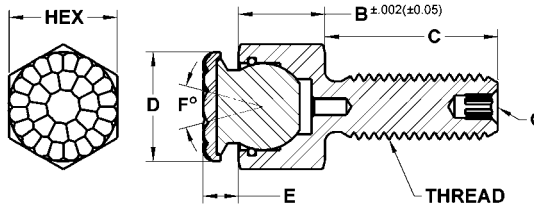
METRIC

Delrin Part #	Steel Part #	Dia.	Tap	B Length	C Contact Dia.	D Stand Off	E Degree Swivel	F Thread Depth	Ball Dia.	Load Rating Lbs*
MBBU-1012-D	MBBU-1012-F	10	M4X0.7	10.5	6	1.5	28	3.5	7	2,585
MBBU-1012-D-T	MBBU-1012-F-T	10	M4X0.7	10.5	6	3	28	3.5	7	2,585
MBBU-1025-D	MBBU-1025-F	10	M4X0.7	23.5	6	1.5	28	9	7	2,585
MBBU-1025-D-T	MBBU-1025-F-T	10	M4X0.7	23.5	6	3	28	9	7	2,585
MBBU-1316-D	MBBU-1316-F	13	M5X0.8	14.5	8.5	1.5	24	6.5	10	4,452
MBBU-1316-D-T	MBBU-1316-F-T	13	M5X0.8	14.5	8.5	3	24	6.5	10	4,452
MBBU-1325-D	MBBU-1325-F	13	M5X0.8	23.5	8.5	1.5	24	9	10	4,452
MBBU-1325-D-T	MBBU-1325-F-T	13	M5X0.8	23.5	8.5	3	24	9	10	4,452
MBBU-1722-D	MBBU-1722-F	17	M6X1.0	18	10	4	42	7.5	13	6,170
MBBU-1722-D-T	MBBU-1722-F-T	17	M6X1.0	18	10	6	42	7.5	13	6,170
MBBU-1924-D	MBBU-1924-F	19	M8X1.25	20	12	4	45	8.5	15	8,688
MBBU-1924-D-T	MBBU-1924-F-T	19	M8X1.25	20	12	6	45	8.5	15	8,688
MBBU-2428-D	MBBU-2428-F	24	M10X1.5	24	16	4	40	9	20	13,117
MBBU-2428-D-T	MBBU-2428-F-T	24	M10X1.5	24	16	6	40	9	20	13,117

*Load ratings do not apply to the delrin ball styles.

SWIVOTS® - REPLACEABLE SWIVEL BALL

Hex Head | Stainless Ball | Inch & Metric Sof-Top Urethane Surface



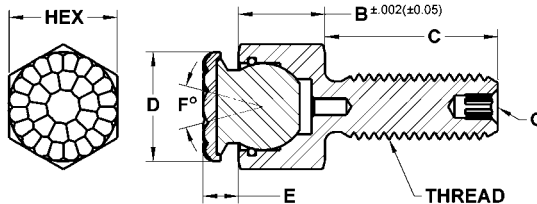
The replaceable ball swivels to allow for self-alignment on uneven surfaces. A Viton O-ring holds the ball in place while keeping contaminants out and providing smooth ball movement. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The urethane surface is permanently bonded to a 300 series stainless steel ball. The non-marking, non-staining urethane provides excellent protection against damage on delicate work surfaces. The “bubbled” texture of the urethane top offers firm holding and allows air to escape so no suction is created between the contact surface and the top of the rest pad as it is compressed. Because the top is made of urethane it offers superior abrasion and wear resistance. They are available in three durometers to meet a wide variety of application needs. Replacement balls and O-rings can be ordered separately. See page 34 for diagram of components. Visit www.fairlaneproducts.com for compression load ratings. To order part, add desired durometer (xx) to the part number. Sample BUH-0124-FC-35UR.

INCH

Part #	Thread	Hex Head	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Urethane Thickness	xx = Durometer
BUH-0124-FC-xxUR	#10-24	3/8	1/4	1/2	.315	.143	28	—	3/16	.08	35 / 60 / 80
BUH-0124 X 1-FC-xxUR	#10-24	3/8	1/4	1	.315	.143	28	—	3/16	.08	35 / 60 / 80
BUH-0132-FC-xxUR	#10-32	3/8	1/4	1/2	.315	.143	28	—	3/16	.08	35 / 60 / 80
BUH-0132 X 1-FC-xxUR	#10-32	3/8	1/4	1	.315	.143	28	—	3/16	.08	35 / 60 / 80
BUH-0250-FC-xxUR	1/4-20	7/16	5/16	1/2	.394	.174	28	—	9/32	.08	35 / 60 / 80
BUH-0251-FC-xxUR	1/4-20	7/16	5/16	1	.394	.174	28	—	9/32	.08	35 / 60 / 80
BUH-0251 X 1.5-FC-xxUR	1/4-20	7/16	5/16	1-1/2	.394	.174	28	—	9/32	.08	35 / 60 / 80
BUH-0280-FC-xxUR	1/4-28	7/16	5/16	1/2	.394	.174	28	—	9/32	.08	35 / 60 / 80
BUH-0281-FC-xxUR	1/4-28	7/16	5/16	1	.394	.174	28	—	9/32	.08	35 / 60 / 80
BUH-0281 X 1.5-FC-xxUR	1/4-28	7/16	5/16	1-1/2	.394	.174	28	—	9/32	.08	35 / 60 / 80
BUH-0310-FC-xxUR	5/16-18	1/2	3/8	1/2	.512	.205	28	—	3/8	.08	35 / 60 / 80
BUH-0312-FC-xxUR	5/16-18	1/2	3/8	1	.512	.205	28	—	3/8	.08	35 / 60 / 80
BUH-0312 X 1.5-FC-xxUR	5/16-18	1/2	3/8	1-1/2	.512	.205	28	—	3/8	.08	35 / 60 / 80
BUH-0320-FC-xxUR	5/16-24	1/2	3/8	1/2	.512	.205	28	—	3/8	.08	35 / 60 / 80
BUH-0321-FC-xxUR	5/16-24	1/2	3/8	1	.512	.205	28	—	3/8	.08	35 / 60 / 80
BUH-0321 X 1.5-FC-xxUR	5/16-24	1/2	3/8	1-1/2	.512	.205	28	—	3/8	.08	35 / 60 / 80
BUH-0370-FC-xxUR	3/8-16	5/8	1/2	1/2	.630	.205	28	1/8	1/2	.08	35 / 60 / 80
BUH-0375-FC-xxUR	3/8-16	5/8	1/2	1	.630	.205	28	1/8	1/2	.08	35 / 60 / 80
BUH-0375 X 1.5-FC-xxUR	3/8-16	5/8	1/2	1-1/2	.630	.205	28	1/8	1/2	.08	35 / 60 / 80
BUH-0230-FC-xxUR	3/8-24	5/8	1/2	1/2	.630	.205	28	1/8	1/2	.08	35 / 60 / 80
BUH-0231-FC-xxUR	3/8-24	5/8	1/2	1	.630	.205	28	1/8	1/2	.08	35 / 60 / 80
BUH-0231 X 1.5-FC-xxUR	3/8-24	5/8	1/2	1-1/2	.630	.205	28	1/8	1/2	.08	35 / 60 / 80
BUH-0510-FC-xxUR	1/2-13	13/16	5/8	1	.827	.236	33	3/16	5/8	.08	35 / 60 / 80
BUH-0515-FC-xxUR	1/2-13	13/16	5/8	1-1/2	.827	.236	33	3/16	5/8	.08	35 / 60 / 80
BUH-0240-FC-xxUR	1/2-20	13/16	5/8	1	.827	.236	33	3/16	5/8	.08	35 / 60 / 80
BUH-0500-FC-xxUR	1/2-20	13/16	5/8	1-1/2	.827	.236	33	3/16	5/8	.08	35 / 60 / 80
BUH-0625-FC-xxUR	5/8-11	15/16	11/16	1	.906	.236	33	1/4	3/4	.08	35 / 60 / 80
BUH-0625 X 2-FC-xxUR	5/8-11	15/16	11/16	2	.906	.236	33	1/4	3/4	.08	35 / 60 / 80
BUH-0620-FC-xxUR	5/8-18	15/16	11/16	1	.906	.236	33	1/4	3/4	.08	35 / 60 / 80
BUH-0620 X 2-FC-xxUR	5/8-18	15/16	11/16	2	.906	.236	33	1/4	3/4	.08	35 / 60 / 80

SWIVOTS® - REPLACEABLE SWIVEL BALL

Hex Head | Stainless Ball | Inch & Metric (continued) Sof-Top Urethane Surface

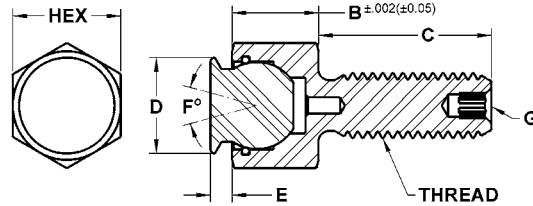


METRIC

Part #	Thread	Hex Head	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Urethane Thickness	xx = Durometer
MBUH-06012-FC-xxUR	M6X1.0	10	8	12	10	4	28	—	7	2	35 / 60 / 80
MBUH-06025-FC-xxUR	M6X1.0	10	8	25	10	4	28	—	7	2	35 / 60 / 80
MBUH-06040-FC-xxUR	M6X1.0	10	8	40	10	4	28	—	7	2	35 / 60 / 80
MBUH-08012-FC-xxUR	M8X1.25	13	11.5	12	13	5	28	—	10	2	35 / 60 / 80
MBUH-08025-FC-xxUR	M8X1.25	13	11.5	25	13	5	28	—	10	2	35 / 60 / 80
MBUH-08040-FC-xxUR	M8X1.25	13	11.5	40	13	5	28	—	10	2	35 / 60 / 80
MBUH-10015-FC-xxUR	M10X1.5	17	13	15	16	5	28	3	13	2	35 / 60 / 80
MBUH-10030-FC-xxUR	M10X1.5	17	13	30	16	5	28	3	13	2	35 / 60 / 80
MBUH-10050-FC-xxUR	M10X1.5	17	13	50	16	5	28	3	13	2	35 / 60 / 80
MBUH-12020-FC-xxUR	M12X1.75	19	15	20	21	6	24	5	15	2	35 / 60 / 80
MBUH-12040-FC-xxUR	M12X1.75	19	15	40	21	6	24	5	15	2	35 / 60 / 80
MBUH-12060-FC-xxUR	M12X1.75	19	15	60	21	6	24	5	15	2	35 / 60 / 80
MBUH-16025-FC-xxUR	M16X2.0	24	19	25	23	6	24	6	20	2	35 / 60 / 80
MBUH-16050-FC-xxUR	M16X2.0	24	19	50	23	6	24	6	20	2	35 / 60 / 80
MBUH-16080-FC-xxUR	M16X2.0	24	19	80	23	6	24	6	20	2	35 / 60 / 80

SWIVOTS® - REPLACEABLE SWIVEL BALL

**Hex Head | Flat Cone | Inch & Metric
Delrin | Stainless | Diamond Surface**



The replaceable ball swivels to allow for self-alignment on uneven surfaces. The flat cone design provides a large contact surface for greater force distribution. A Viton O-ring holds the ball in place while keeping contaminants out and providing smooth ball movement. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The delrin ball is made from non-marring white delrin. The stainless ball is made from 300 series stainless steel. The diamond style has a diamond abrasive surface that is permanently fused to a 300 series stainless steel ball. The surface texture is comparable to a 100 grit abrasive. They are ideal for holding smooth or slippery applications with a minimum of clamping pressure. Individual diamond particles transfer holding pressure to a very small and well distributed area, providing superior holding with minimal surface marking. The diamond surface provides unparalleled wear resistance. Replacement balls and O-rings can be ordered separately. See page 34 for diagram of components.

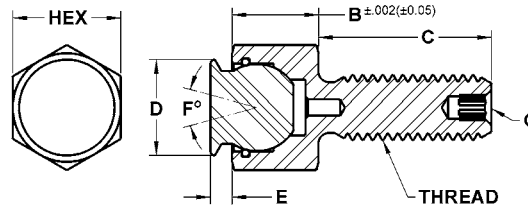
INCH

Delrin Part #	Stainless Part #	Diamond Part #	Thread	Hex Head	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Load Rating Lbs.*
BUH-0124-DC	BUH-0124-FC	BUH-0124-FC-DS	#10-24	3/8	1/4	1/2	.236	.063	28	—	3/16	1,176
BUH-0124 X 1-DC	BUH-0124 X 1-FC	BUH-0124 X 1-FC-DS	#10-24	3/8	1/4	1	.236	.063	28	—	3/16	1,176
BUH-0132-DC	BUH-0132-FC	BUH-0132-FC-DS	#10-32	3/8	1/4	1/2	.236	.063	28	—	3/16	1,176
BUH-0132 X 1-DC	BUH-0132 X 1-FC	BUH-0132 X 1-FC-DS	#10-32	3/8	1/4	1	.236	.063	28	—	3/16	1,176
BUH-0250-DC	BUH-0250-FC	BUH-0250-FC-DS	1/4-20	7/16	5/16	1/2	.315	.094	28	—	9/32	2,441
BUH-0251-DC	BUH-0251-FC	BUH-0251-FC-DS	1/4-20	7/16	5/16	1	.315	.094	28	—	9/32	2,441
BUH-0251 X 1.5-DC	BUH-0251 X 1.5-FC	BUH-0251 X 1.5-FC-DS	1/4-20	7/16	5/16	1-1/2	.315	.094	28	—	9/32	2,441
BUH-0280-DC	BUH-0280-FC	BUH-0280-FC-DS	1/4-28	7/16	5/16	1/2	.315	.094	28	—	9/32	2,441
BUH-0281-DC	BUH-0281-FC	BUH-0281-FC-DS	1/4-28	7/16	5/16	1	.315	.094	28	—	9/32	2,441
BUH-0281 X 1.5-DC	BUH-0281 X 1.5-FC	BUH-0281 X 1.5-FC-DS	1/4-28	7/16	5/16	1-1/2	.315	.094	28	—	9/32	2,441
BUH-0310-DC	BUH-0310-FC	BUH-0310-FC-DS	5/16-18	1/2	3/8	1/2	.433	.125	28	—	3/8	2,792
BUH-0312-DC	BUH-0312-FC	BUH-0312-FC-DS	5/16-18	1/2	3/8	1	.433	.125	28	—	3/8	2,792
BUH-0312 X 1.5-DC	BUH-0312 X 1.5-FC	BUH-0312 X 1.5-FC-DS	5/16-18	1/2	3/8	1-1/2	.433	.125	28	—	3/8	2,792
BUH-0320-DC	BUH-0320-FC	BUH-0320-FC-DS	5/16-24	1/2	3/8	1/2	.433	.125	28	—	3/8	2,792
BUH-0321-DC	BUH-0321-FC	BUH-0321-FC-DS	5/16-24	1/2	3/8	1	.433	.125	28	—	3/8	2,792
BUH-0321 X 1.5-DC	BUH-0321 X 1.5-FC	BUH-0321 X 1.5-FC-DS	5/16-24	1/2	3/8	1-1/2	.433	.125	28	—	3/8	2,792
BUH-0370-DC	BUH-0370-FC	BUH-0370-FC-DS	3/8-16	5/8	1/2	1/2	.551	.125	28	1/8	1/2	3,446
BUH-0375-DC	BUH-0375-FC	BUH-0375-FC-DS	3/8-16	5/8	1/2	1	.551	.125	28	1/8	1/2	3,446
BUH-0375 X 1.5-DC	BUH-0375 X 1.5-FC	BUH-0375 X 1.5-FC-DS	3/8-16	5/8	1/2	1-1/2	.551	.125	28	1/8	1/2	3,446
BUH-0230-DC	BUH-0230-FC	BUH-0230-FC-DS	3/8-24	5/8	1/2	1/2	.551	.125	28	1/8	1/2	3,446
BUH-0231-DC	BUH-0231-FC	BUH-0231-FC-DS	3/8-24	5/8	1/2	1	.551	.125	28	1/8	1/2	3,446
BUH-0231 X 1.5-DC	BUH-0231 X 1.5-FC	BUH-0231 X 1.5-FC-DS	3/8-24	5/8	1/2	1-1/2	.551	.125	28	1/8	1/2	3,446
BUH-0510-DC	BUH-0510-FC	BUH-0510-FC-DS	1/2-13	13/16	5/8	1	.748	.156	32	3/16	5/8	5,937
BUH-0515-DC	BUH-0515-FC	BUH-0515-FC-DS	1/2-13	13/16	5/8	1-1/2	.748	.156	32	3/16	5/8	5,937
BUH-0240-DC	BUH-0240-FC	BUH-0240-FC-DS	1/2-20	13/16	5/8	1	.748	.156	32	3/16	5/8	7,178
BUH-0500-DC	BUH-0500-FC	BUH-0500-FC-DS	1/2-20	13/16	5/8	1-1/2	.748	.156	32	3/16	5/8	7,178
BUH-0625-DC	BUH-0625-FC	BUH-0625-FC-DS	5/8-11	15/16	11/16	1	.827	.156	32	1/4	3/4	9,932
BUH-0625 X 2-DC	BUH-0625 X 2-FC	BUH-0625 X 2-FC-DS	5/8-11	15/16	11/16	2	.827	.156	32	1/4	3/4	9,932
BUH-0620-DC	BUH-0620-FC	BUH-0620-FC-DS	5/8-18	15/16	11/16	1	.827	.156	32	1/4	3/4	11,874
BUH-0620 X 2-DC	BUH-0620 X 2-FC	BUH-0620 X 2-FC-DS	5/8-18	15/16	11/16	2	.827	.156	32	1/4	3/4	11,874

*Load ratings do not apply to the delrin ball styles.

SWIVOTS® - REPLACEABLE SWIVEL BALL

Hex Head | Flat Cone | Inch & Metric (continued)
Delrin | Stainless | Diamond Surface



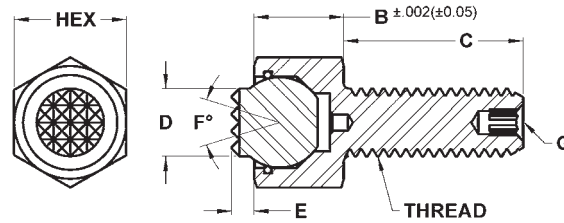
METRIC

Delrin Part #	Stainless Part #	Diamond Part #	Thread	Hex Head	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Load Rating Lbs.*
MBUH-06012-DC	MBUH-06012-FC	MBUH-06012-FC-DS	M6X1.0	10	8	12	8	2	28	—	7	2,061
MBUH-06025-DC	MBUH-06025-FC	MBUH-06025-FC-DS	M6X1.0	10	8	25	8	2	28	—	7	2,061
MBUH-06040-DC	MBUH-06040-FC	MBUH-06040-FC-DS	M6X1.0	10	8	40	8	2	28	—	7	2,061
MBUH-08012-DC	MBUH-08012-FC	MBUH-08012-FC-DS	M8X1.25	13	11.5	12	11	3	28	—	10	3,450
MBUH-08025-DC	MBUH-08025-FC	MBUH-08025-FC-DS	M8X1.25	13	11.5	25	11	3	28	—	10	3,450
MBUH-08040-DC	MBUH-08040-FC	MBUH-08040-FC-DS	M8X1.25	13	11.5	40	11	3	28	—	10	3,450
MBUH-10015-DC	MBUH-10015-FC	MBUH-10015-FC-DS	M10X1.5	17	13	15	14	3	28	3	13	4,194
MBUH-10030-DC	MBUH-10030-FC	MBUH-10030-FC-DS	M10X1.5	17	13	30	14	3	28	3	13	4,194
MBUH-10050-DC	MBUH-10050-FC	MBUH-10050-FC-DS	M10X1.5	17	13	50	14	3	28	3	13	4,194
MBUH-12020-DC	MBUH-12020-FC	MBUH-12020-FC-DS	M12X1.75	19	15	20	19	4	24	5	15	6,627
MBUH-12040-DC	MBUH-12040-FC	MBUH-12040-FC-DS	M12X1.75	19	15	40	19	4	24	5	15	6,627
MBUH-12060-DC	MBUH-12060-FC	MBUH-12060-FC-DS	M12X1.75	19	15	60	19	4	24	5	15	6,627
MBUH-16025-DC	MBUH-16025-FC	MBUH-16025-FC-DS	M16X2.0	24	19	25	21	4	24	6	20	11,183
MBUH-16050-DC	MBUH-16050-FC	MBUH-16050-FC-DS	M16X2.0	24	19	50	21	4	24	6	20	11,183
MBUH-16080-DC	MBUH-16080-FC	MBUH-16080-FC-DS	M16X2.0	24	19	80	21	4	24	6	20	11,183

*Load ratings do not apply to the delrin ball styles.

SWIVOTS® - REPLACEABLE SWIVEL BALL

Hex Head | Serrated | Inch & Metric Tool Steel



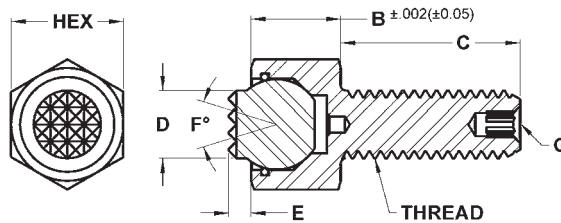
The replaceable serrated ball swivels to allow for self-alignment on uneven surfaces. A Viton O-ring holds the ball in place while keeping contaminants out and providing smooth ball movement. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The replaceable ball is made from M-2 high speed steel, heat treated to Rc 60/62. Replacement balls and O-rings can be ordered separately. See page 34 for diagram of components. See page 4 for tooth pattern specifications.

INCH

Part #	Thread	Hex Head	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Tooth Pattern	Load Rating Lbs.
BUH-0124-S	#10-24	3/8	1/4	1/2	5/32	1/16	28	—	3/16	SF	1,176
BUH-0124 X 1-S	#10-24	3/8	1/4	1	5/32	1/16	28	—	3/16	SF	1,176
BUH-0132-S	#10-32	3/8	1/4	1/2	5/32	1/16	28	—	3/16	SF	1,176
BUH-0132 X 1-S	#10-32	3/8	1/4	1	5/32	1/16	28	—	3/16	SF	1,176
BUH-0250-S	1/4-20	7/16	5/16	1/2	1/4	1/16	28	—	9/32	SF	2,441
BUH-0250-S-T	1/4-20	7/16	5/16	1/2	1/4	1/8	28	—	9/32	SF	2,441
BUH-0251-S	1/4-20	7/16	5/16	1	1/4	1/16	28	—	9/32	SF	2,441
BUH-0251-S-T	1/4-20	7/16	5/16	1	1/4	1/8	28	—	9/32	SF	2,441
BUH-0251 X 1.5-S	1/4-20	7/16	5/16	1-1/2	1/4	1/16	28	—	9/32	SF	2,441
BUH-0251 X 1.5-S-T	1/4-20	7/16	5/16	1-1/2	1/4	1/8	28	—	9/32	SF	2,441
BUH-0280-S	1/4-28	7/16	5/16	1/2	1/4	1/16	28	—	9/32	SF	2,441
BUH-0280-S-T	1/4-28	7/16	5/16	1/2	1/4	1/8	28	—	9/32	SF	2,441
BUH-0281-S	1/4-28	7/16	5/16	1	1/4	1/16	28	—	9/32	SF	2,441
BUH-0281-S-T	1/4-28	7/16	5/16	1	1/4	1/8	28	—	9/32	SF	2,441
BUH-0281 X 1.5-S	1/4-28	7/16	5/16	1-1/2	1/4	1/16	28	—	9/32	SF	2,441
BUH-0281 X 1.5-S-T	1/4-28	7/16	5/16	1-1/2	1/4	1/8	28	—	9/32	SF	2,441
BUH-0310-S	5/16-18	1/2	3/8	1/2	5/16	1/16	28	—	3/8	EF	2,792
BUH-0310-S-T	5/16-18	1/2	3/8	1/2	5/16	1/8	28	—	3/8	EF	2,792
BUH-0310-SF	5/16-18	1/2	3/8	1/2	5/16	1/16	28	—	3/8	SF	2,792
BUH-0310-SF-T	5/16-18	1/2	3/8	1/2	5/16	1/8	28	—	3/8	SF	2,792
BUH-0312-S	5/16-18	1/2	3/8	1	5/16	1/16	28	—	3/8	EF	2,792
BUH-0312-S-T	5/16-18	1/2	3/8	1	5/16	1/8	28	—	3/8	EF	2,792
BUH-0312-SF	5/16-18	1/2	3/8	1	5/16	1/16	28	—	3/8	SF	2,792
BUH-0312-SF-T	5/16-18	1/2	3/8	1	5/16	1/8	28	—	3/8	SF	2,792
BUH-0312 X 1.5-S	5/16-18	1/2	3/8	1-1/2	5/16	1/16	28	—	3/8	EF	2,792
BUH-0312 X 1.5-S-T	5/16-18	1/2	3/8	1-1/2	5/16	1/8	28	—	3/8	EF	2,792
BUH-0312 X 1.5-SF	5/16-18	1/2	3/8	1-1/2	5/16	1/16	28	—	3/8	SF	2,792
BUH-0312 X 1.5-SF-T	5/16-18	1/2	3/8	1-1/2	5/16	1/8	28	—	3/8	SF	2,792
BUH-0320-S	5/16-24	1/2	3/8	1/2	5/16	1/16	28	—	3/8	EF	2,792
BUH-0320-S-T	5/16-24	1/2	3/8	1/2	5/16	1/8	28	—	3/8	EF	2,792
BUH-0320-SF	5/16-24	1/2	3/8	1/2	5/16	1/16	28	—	3/8	SF	2,792
BUH-0320-SF-T	5/16-24	1/2	3/8	1/2	5/16	1/8	28	—	3/8	SF	2,792
BUH-0321-S	5/16-24	1/2	3/8	1	5/16	1/16	28	—	3/8	EF	2,792
BUH-0321-S-T	5/16-24	1/2	3/8	1	5/16	1/8	28	—	3/8	EF	2,792
BUH-0321-SF	5/16-24	1/2	3/8	1	5/16	1/16	28	—	3/8	SF	2,792
BUH-0321-SF-T	5/16-24	1/2	3/8	1	5/16	1/8	28	—	3/8	SF	2,792
BUH-0321 X 1.5-S	5/16-24	1/2	3/8	1-1/2	5/16	1/16	28	—	3/8	EF	2,792
BUH-0321 X 1.5-S-T	5/16-24	1/2	3/8	1-1/2	5/16	1/8	28	—	3/8	EF	2,792
BUH-0321 X 1.5-SF	5/16-24	1/2	3/8	1-1/2	5/16	1/16	28	—	3/8	SF	2,792
BUH-0321 X 1.5-SF-T	5/16-24	1/2	3/8	1-1/2	5/16	1/8	28	—	3/8	SF	2,792

SWIVOTS® - REPLACEABLE SWIVEL BALL

Hex Head | Serrated | Inch & Metric (continued) Tool Steel

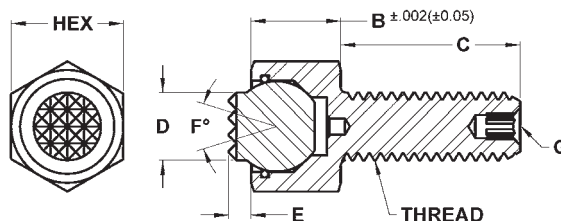


INCH (CONTINUED)

Part #	Thread	Hex Head	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Tooth Pattern	Load Rating Lbs.
BUH-0370-S	3/8-16	5/8	1/2	1/2	3/8	1/8	40	1/8	1/2	EF	3,446
BUH-0370-S-T	3/8-16	5/8	1/2	1/2	3/8	1/4	40	1/8	1/2	EF	3,446
BUH-0370-SF	3/8-16	5/8	1/2	1/2	3/8	1/8	40	1/8	1/2	SF	3,446
BUH-0370-SF-T	3/8-16	5/8	1/2	1/2	3/8	1/4	40	1/8	1/2	SF	3,446
BUH-0375-S	3/8-16	5/8	1/2	1	3/8	1/8	40	1/8	1/2	EF	3,446
BUH-0375-S-T	3/8-16	5/8	1/2	1	3/8	1/4	40	1/8	1/2	EF	3,446
BUH-0375-SF	3/8-16	5/8	1/2	1	3/8	1/8	40	1/8	1/2	SF	3,446
BUH-0375-SF-T	3/8-16	5/8	1/2	1	3/8	1/4	40	1/8	1/2	SF	3,446
BUH-0375 X 1.5-S	3/8-16	5/8	1/2	1-1/2	3/8	1/8	40	1/8	1/2	EF	3,446
BUH-0375 X 1.5-S-T	3/8-16	5/8	1/2	1-1/2	3/8	1/4	40	1/8	1/2	EF	3,446
BUH-0375 X 1.5-SF	3/8-16	5/8	1/2	1-1/2	3/8	1/8	40	1/8	1/2	SF	3,446
BUH-0375 X 1.5-SF-T	3/8-16	5/8	1/2	1-1/2	3/8	1/4	40	1/8	1/2	SF	3,446
BUH-0230-S	3/8-24	5/8	1/2	1/2	3/8	1/8	40	1/8	1/2	EF	3,446
BUH-0230-S-T	3/8-24	5/8	1/2	1/2	3/8	1/4	40	1/8	1/2	EF	3,446
BUH-0230-SF	3/8-24	5/8	1/2	1/2	3/8	1/8	40	1/8	1/2	SF	3,446
BUH-0230-SF-T	3/8-24	5/8	1/2	1/2	3/8	1/4	40	1/8	1/2	SF	3,446
BUH-0231-S	3/8-24	5/8	1/2	1	3/8	1/8	40	1/8	1/2	EF	3,446
BUH-0231-S-T	3/8-24	5/8	1/2	1	3/8	1/4	40	1/8	1/2	EF	3,446
BUH-0231-SF	3/8-24	5/8	1/2	1	3/8	1/8	40	1/8	1/2	SF	3,446
BUH-0231-SF-T	3/8-24	5/8	1/2	1	3/8	1/4	40	1/8	1/2	SF	3,446
BUH-0231 X 1.5-S	3/8-24	5/8	1/2	1-1/2	3/8	1/8	40	1/8	1/2	EF	3,446
BUH-0231 X 1.5-S-T	3/8-24	5/8	1/2	1-1/2	3/8	1/4	40	1/8	1/2	EF	3,446
BUH-0231 X 1.5-SF	3/8-24	5/8	1/2	1-1/2	3/8	1/8	40	1/8	1/2	SF	3,446
BUH-0231 X 1.5-SF-T	3/8-24	5/8	1/2	1-1/2	3/8	1/4	40	1/8	1/2	SF	3,446
BUH-0510-S	1/2-13	13/16	5/8	1	1/2	1/8	40	3/16	5/8	Fine	5,937
BUH-0510-S-T	1/2-13	13/16	5/8	1	1/2	1/4	40	3/16	5/8	Fine	5,937
BUH-0510-EF	1/2-13	13/16	5/8	1	1/2	1/8	40	3/16	5/8	EF	5,937
BUH-0510-EF-T	1/2-13	13/16	5/8	1	1/2	1/4	40	3/16	5/8	EF	5,937
BUH-0510-SF	1/2-13	13/16	5/8	1	1/2	1/8	40	3/16	5/8	SF	5,937
BUH-0510-SF-T	1/2-13	13/16	5/8	1	1/2	1/4	40	3/16	5/8	SF	5,937
BUH-0515-S	1/2-13	13/16	5/8	1-1/2	1/2	1/8	40	3/16	5/8	Fine	5,937
BUH-0515-S-T	1/2-13	13/16	5/8	1-1/2	1/2	1/4	40	3/16	5/8	Fine	5,937
BUH-0515-EF	1/2-13	13/16	5/8	1-1/2	1/2	1/8	40	3/16	5/8	EF	5,937
BUH-0515-EF-T	1/2-13	13/16	5/8	1-1/2	1/2	1/4	40	3/16	5/8	EF	5,937
BUH-0515-SF	1/2-13	13/16	5/8	1-1/2	1/2	1/8	40	3/16	5/8	SF	5,937
BUH-0515-SF-T	1/2-13	13/16	5/8	1-1/2	1/2	1/4	40	3/16	5/8	SF	5,937
BUH-0240-S	1/2-20	13/16	5/8	1	1/2	1/8	40	3/16	5/8	Fine	7,178
BUH-0240-S-T	1/2-20	13/16	5/8	1	1/2	1/4	40	3/16	5/8	Fine	7,178
BUH-0240-EF	1/2-20	13/16	5/8	1	1/2	1/8	40	3/16	5/8	EF	7,178
BUH-0240-EF-T	1/2-20	13/16	5/8	1	1/2	1/4	40	3/16	5/8	EF	7,178
BUH-0240-SF	1/2-20	13/16	5/8	1	1/2	1/8	40	3/16	5/8	SF	7,178
BUH-0240-SF-T	1/2-20	13/16	5/8	1	1/2	1/4	40	3/16	5/8	SF	7,178
BUH-0500-S	1/2-20	13/16	5/8	1-1/2	1/2	1/8	40	3/16	5/8	Fine	7,178
BUH-0500-S-T	1/2-20	13/16	5/8	1-1/2	1/2	1/4	40	3/16	5/8	Fine	7,178
BUH-0500-EF	1/2-20	13/16	5/8	1-1/2	1/2	1/8	40	3/16	5/8	EF	7,178
BUH-0500-EF-T	1/2-20	13/16	5/8	1-1/2	1/2	1/4	40	3/16	5/8	EF	7,178
BUH-0500-SF	1/2-20	13/16	5/8	1-1/2	1/2	1/8	40	3/16	5/8	SF	7,178
BUH-0500-SF-T	1/2-20	13/16	5/8	1-1/2	1/2	1/4	40	3/16	5/8	SF	7,178
BUH-0625-S	5/8-11	15/16	11/16	1	5/8	1/8	34	1/4	3/4	Fine	9,932
BUH-0625-S-T	5/8-11	15/16	11/16	1	5/8	1/4	34	1/4	3/4	Fine	9,932
BUH-0625-EF	5/8-11	15/16	11/16	1	5/8	1/8	34	1/4	3/4	EF	9,932
BUH-0625-EF-T	5/8-11	15/16	11/16	1	5/8	1/4	34	1/4	3/4	EF	9,932

SWIVOTS® - REPLACEABLE SWIVEL BALL

Hex Head | Serrated | Inch & Metric (continued) Tool Steel



INCH (CONTINUED)

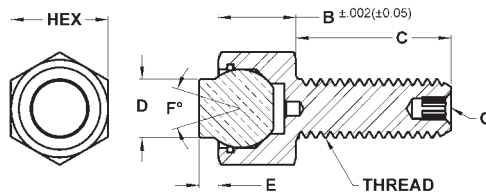
Part #	Thread	Hex Head	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Tooth Pattern	Load Rating Lbs.
BUH-0625 X 2-S	5/8-11	15/16	11/16	2	5/8	1/8	34	1/4	3/4	Fine	9,932
BUH-0625 X 2-S-T	5/8-11	15/16	11/16	2	5/8	1/4	34	1/4	3/4	Fine	9,932
BUH-0625 X 2-EF	5/8-11	15/16	11/16	2	5/8	1/8	34	1/4	3/4	EF	9,932
BUH-0625 X 2-EF-T	5/8-11	15/16	11/16	2	5/8	1/4	34	3/4	3/4	EF	9,932
BUH-0620-S	5/8-18	15/16	11/16	1	5/8	1/8	34	1/4	3/4	Fine	11,874
BUH-0620-S-T	5/8-18	15/16	11/16	1	5/8	1/4	34	1/4	3/4	Fine	11,874
BUH-0620-EF	5/8-18	15/16	11/16	1	5/8	1/8	34	1/4	3/4	EF	11,874
BUH-0620-EF-T	5/8-18	15/16	11/16	1	5/8	1/4	34	1/4	3/4	EF	11,874
BUH-0620 X 2-S	5/8-18	15/16	11/16	2	5/8	1/8	34	1/4	3/4	Fine	11,874
BUH-0620 X 2-S-T	5/8-18	15/16	11/16	2	5/8	1/4	34	1/4	3/4	Fine	11,874
BUH-0620 X 2-EF	5/8-18	15/16	11/16	2	5/8	1/8	34	1/4	3/4	EF	11,874
BUH-0620 X 2-EF-T	5/8-18	15/16	11/16	2	5/8	1/4	34	1/4	3/4	EF	11,874

METRIC

Part #	Thread	Hex Head	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Tooth Pattern	Load Rating Lbs.
MBUH-06012-S	M6X1.0	10	8	12	6	1.5	28	—	7	SF	2,061
MBUH-06012-S-T	M6X1.0	10	8	12	6	3	28	—	7	SF	2,061
MBUH-06025-S	M6X1.0	10	8	25	6	1.5	28	—	7	SF	2,061
MBUH-06025-S-T	M6X1.0	10	8	25	6	3	28	—	7	SF	2,061
MBUH-06040-S	M6X1.0	10	8	40	6	1.5	28	—	7	SF	2,061
MBUH-06040-S-T	M6X1.0	10	8	40	6	3	28	—	7	SF	2,061
MBUH-08012-S	M8X1.25	13	11.5	12	8.5	1.5	24	—	10	EF	3,450
MBUH-08012-S-T	M8X1.25	13	11.5	12	8.5	3	24	—	10	EF	3,450
MBUH-08025-S	M8X1.25	13	11.5	25	8.5	1.5	24	—	10	EF	3,450
MBUH-08025-S-T	M8X1.25	13	11.5	25	8.5	3	24	—	10	EF	3,450
MBUH-08040-S	M8X1.25	13	11.5	40	8.5	1.5	24	—	10	EF	3,450
MBUH-08040-S-T	M8X1.25	13	11.5	40	8.5	3	24	—	10	EF	3,450
MBUH-10015-S	M10X1.5	17	13	15	10	4	42	3	13	EF	4,194
MBUH-10015-S-T	M10X1.5	17	13	15	10	6	42	3	13	EF	4,194
MBUH-10030-S	M10X1.5	17	13	30	10	4	42	3	13	EF	4,194
MBUH-10030-S-T	M10X1.5	17	13	30	10	6	42	3	13	EF	4,194
MBUH-10050-S	M10X1.5	17	13	50	10	4	42	3	13	EF	4,194
MBUH-10050-S-T	M10X1.5	17	13	50	10	6	42	3	13	EF	4,194
MBUH-12020-S	M12X1.75	19	15	20	12	4	45	5	15	Fine	6,627
MBUH-12020-S-T	M12X1.75	19	15	20	12	6	45	5	15	Fine	6,627
MBUH-12040-S	M12X1.75	19	15	40	12	4	45	5	15	Fine	6,627
MBUH-12040-S-T	M12X1.75	19	15	40	12	6	45	5	15	Fine	6,627
MBUH-12060-S	M12X1.75	19	15	60	12	4	45	5	15	Fine	6,627
MBUH-12060-S-T	M12X1.75	19	15	60	12	6	45	5	15	Fine	6,627
MBUH-16025-S	M16X2.0	24	19	25	16	4	40	6	20	Fine	11,183
MBUH-16025-S-T	M16X2.0	24	19	25	16	6	40	6	20	Fine	11,183
MBUH-16050-S	M16X2.0	24	19	50	16	4	40	6	20	Fine	11,183
MBUH-16050-S-T	M16X2.0	24	19	50	16	6	40	6	20	Fine	11,183
MBUH-16080-S	M16X2.0	24	19	80	16	4	40	6	20	Fine	11,183
MBUH-16080-S-T	M16X2.0	24	19	80	16	6	40	6	20	Fine	11,183

SWIVOTS® - REPLACEABLE SWIVEL BALL

Hex Head | Flat Ball | Inch & Metric Delrin | Steel



The replaceable flat ball swivels to allow for self-alignment on uneven surfaces. A Viton O-ring holds the ball in place while keeping contaminants out and providing smooth ball movement. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The delrin ball is made from non-marring white delrin. The steel ball is made from M-2 high speed steel heat treated to Rc 60/62. Replacement balls and O-rings can be ordered separately. See page 34 for diagram of components.

INCH

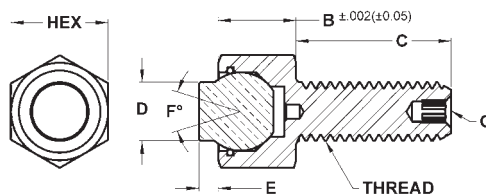
Delrin Part #	Steel Part #	Thread	Hex Head	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Load Rating Lbs*
BUH-0124-D	BUH-0124-F	#10-24	3/8	1/4	1/2	5/32	1/16	28	—	3/16	1,176
BUH-0124 X 1-D	BUH-0124 X 1-F	#10-24	3/8	1/4	1	5/32	1/16	28	—	3/16	1,176
BUH-0132-D	BUH-0132-F	#10-32	3/8	1/4	1/2	5/32	1/16	28	—	3/16	1,176
BUH-0132 X 1-D	BUH-0132 X 1-F	#10-32	3/8	1/4	1	5/32	1/16	28	—	3/16	1,176
BUH-0250-D	BUH-0250-F	1/4-20	7/16	5/16	1/2	1/4	1/16	28	—	9/32	2,441
BUH-0250-D-T	BUH-0250-F-T	1/4-20	7/16	5/16	1/2	1/4	1/8	28	—	9/32	2,441
BUH-0251-D	BUH-0251-F	1/4-20	7/16	5/16	1	1/4	1/16	28	—	9/32	2,441
BUH-0251-D-T	BUH-0251-F-T	1/4-20	7/16	5/16	1	1/4	1/8	28	—	9/32	2,441
BUH-0251 X 1.5-D	BUH-0251 X 1.5-F	1/4-20	7/16	5/16	1-1/2	1/4	1/16	28	—	9/32	2,441
BUH-0251 X 1.5-D-T	BUH-0251 X 1.5-F-T	1/4-20	7/16	5/16	1-1/2	1/4	1/8	28	—	9/32	2,441
BUH-0280-D	BUH-0280-F	1/4-28	7/16	5/16	1/2	1/4	1/16	28	—	9/32	2,441
BUH-0280-D-T	BUH-0280-F-T	1/4-28	7/16	5/16	1/2	1/4	1/8	28	—	9/32	2,441
BUH-0281-D	BUH-0281-F	1/4-28	7/16	5/16	1	1/4	1/16	28	—	9/32	2,441
BUH-0281-D-T	BUH-0281-F-T	1/4-28	7/16	5/16	1	1/4	1/8	28	—	9/32	2,441
BUH-0281 X 1.5-D	BUH-0281 X 1.5-F	1/4-28	7/16	5/16	1-1/2	1/4	1/16	28	—	9/32	2,441
BUH-0281 X 1.5-D-T	BUH-0281 X 1.5-F-T	1/4-28	7/16	5/16	1-1/2	1/4	1/8	28	—	9/32	2,441
BUH-0310-D	BUH-0310-F	5/16-18	1/2	3/8	1/2	5/16	1/16	28	—	3/8	2,792
BUH-0310-D-T	BUH-0310-F-T	5/16-18	1/2	3/8	1/2	5/16	1/8	28	—	3/8	2,792
BUH-0312-D	BUH-0312-F	5/16-18	1/2	3/8	1	5/16	1/16	28	—	3/8	2,792
BUH-0312-D-T	BUH-0312-F-T	5/16-18	1/2	3/8	1	5/16	1/8	28	—	3/8	2,792
BUH-0312 X 1.5-D	BUH-0312 X 1.5-F	5/16-18	1/2	3/8	1-1/2	5/16	1/16	28	—	3/8	2,792
BUH-0312 X 1.5-D-T	BUH-0312 X 1.5-F-T	5/16-18	1/2	3/8	1-1/2	5/16	1/8	28	—	3/8	2,792
BUH-0320-D	BUH-0320-F	5/16-24	1/2	3/8	1/2	5/16	1/16	28	—	3/8	2,792
BUH-0320-D-T	BUH-0320-F-T	5/16-24	1/2	3/8	1/2	5/16	1/8	28	—	3/8	2,792
BUH-0321-D	BUH-0321-F	5/16-24	1/2	3/8	1	5/16	1/16	28	—	3/8	2,792
BUH-0321-D-T	BUH-0321-F-T	5/16-24	1/2	3/8	1	5/16	1/8	28	—	3/8	2,792
BUH-0321 X 1.5-D	BUH-0321 X 1.5-F	5/16-24	1/2	3/8	1-1/2	5/16	1/16	28	—	3/8	2,792
BUH-0321 X 1.5-D-T	BUH-0321 X 1.5-F-T	5/16-24	1/2	3/8	1-1/2	5/16	1/8	28	—	3/8	2,792
BUH-0370-D	BUH-0370-F	3/8-16	5/8	1/2	1/2	3/8	1/8	40	1/8	1/2	3,446
BUH-0370-D-T	BUH-0370-F-T	3/8-16	5/8	1/2	1/2	3/8	1/4	40	1/8	1/2	3,446
BUH-0375-D	BUH-0375-F	3/8-16	5/8	1/2	1	3/8	1/8	40	1/8	1/2	3,446
BUH-0375-D-T	BUH-0375-F-T	3/8-16	5/8	1/2	1	3/8	1/4	40	1/8	1/2	3,446
BUH-0375 X 1.5-D	BUH-0375 X 1.5-F	3/8-16	5/8	1/2	1-1/2	3/8	1/8	40	1/8	1/2	3,446
BUH-0375 X 1.5-D-T	BUH-0375 X 1.5-F-T	3/8-16	5/8	1/2	1-1/2	3/8	1/4	40	1/8	1/2	3,446
BUH-0230-D	BUH-0230-F	3/8-24	5/8	1/2	1/2	3/8	1/8	40	1/8	1/2	3,446
BUH-0230-D-T	BUH-0230-F-T	3/8-24	5/8	1/2	1/2	3/8	1/4	40	1/8	1/2	3,446
BUH-0231-D	BUH-0231-F	3/8-24	5/8	1/2	1	3/8	1/8	40	1/8	1/2	3,446
BUH-0231-D-T	BUH-0231-F-T	3/8-24	5/8	1/2	1	3/8	1/4	40	1/8	1/2	3,446
BUH-0231 X 1.5-D	BUH-0231 X 1.5-F	3/8-24	5/8	1/2	1-1/2	3/8	1/8	40	1/8	1/2	3,446
BUH-0231 X 1.5-D-T	BUH-0231 X 1.5-F-T	3/8-24	5/8	1/2	1-1/2	3/8	1/4	40	1/8	1/2	3,446
BUH-0510-D	BUH-0510-F	1/2-13	13/16	5/8	1	1/2	1/8	40	3/16	5/8	5,937
BUH-0510-D-T	BUH-0510-F-T	1/2-13	13/16	5/8	1	1/2	1/4	40	3/16	5/8	5,937
BUH-0515-D	BUH-0515-F	1/2-13	13/16	5/8	1-1/2	1/2	1/8	40	3/16	5/8	5,937
BUH-0515-D-T	BUH-0515-F-T	1/2-13	13/16	5/8	1-1/2	1/2	1/4	40	3/16	5/8	5,937

*Load ratings do not apply to the delrin ball styles.

SWIVOTS® - REPLACEABLE SWIVEL BALL

Hex Head | Flat Ball | Inch & Metric (continued)

Delrin | Steel



INCH (CONTNUED)

Delrin Part #	Steel Part #	Thread	Hex Head	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Load Rating Lbs*
BUH-0240-D	BUH-0240-F	1/2-20	13/16	5/8	1	1/2	1/8	40	3/16	5/8	7,178
BUH-0240-D-T	BUH-0240-F-T	1/2-20	13/16	5/8	1	1/2	1/4	40	3/16	5/8	7,178
BUH-0500-D	BUH-0500-F	1/2-20	13/16	5/8	1-1/2	1/2	1/8	40	3/16	5/8	7,178
BUH-0500-D-T	BUH-0500-F-T	1/2-20	13/16	5/8	1-1/2	1/2	1/4	40	3/16	5/8	7,178
BUH-0625-D	BUH-0625-F	5/8-11	15/16	11/16	1	5/8	1/8	34	1/4	3/4	9,932
BUH-0625-D-T	BUH-0625-F-T	5/8-11	15/16	11/16	1	5/8	1/4	34	1/4	3/4	9,932
BUH-0625 X 2-D	BUH-0625 X 2-F	5/8-11	15/16	11/16	2	5/8	1/8	34	1/4	3/4	9,932
BUH-0625 X 2-D-T	BUH-0625 X 2-F-T	5/8-11	15/16	11/16	2	5/8	1/4	34	1/4	3/4	9,932
BUH-0620-D	BUH-0620-F	5/8-18	15/16	11/16	1	5/8	1/8	34	1/4	3/4	11,874
BUH-0620-D-T	BUH-0620-F-T	5/8-18	15/16	11/16	1	5/8	1/4	34	1/4	3/4	11,874
BUH-0620 X 2-D	BUH-0620 X 2-F	5/8-18	15/16	11/16	2	5/8	1/8	34	1/4	3/4	11,874
BUH-0620 X 2-D-T	BUH-0620 X 2-F-T	5/8-18	15/16	11/16	2	5/8	1/4	34	1/4	3/4	11,874

*Load ratings do not apply to the delrin ball styles.

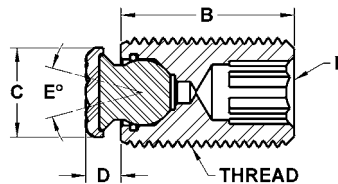
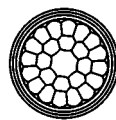
METRIC

Delrin Part #	Steel Part #	Thread	Hex Head	B Head Height	C Thread Length	D Contact Dia.	E Stand Off	F Degree Swivel	G Int. Hex	Ball Dia.	Load Rating Lbs*
MBUH-06012-D	MBUH-06012-F	M6X1.0	10	8	12	6	1.5	28	—	7	2,061
MBUH-06012-D-T	MBUH-06012-F-T	M6X1.0	10	8	12	6	3	28	—	7	2,061
MBUH-06025-D	MBUH-06025-F	M6X1.0	10	8	25	6	1.5	28	—	7	2,061
MBUH-06025-D-T	MBUH-06025-F-T	M6X1.0	10	8	25	6	3	28	—	7	2,061
MBUH-06040-D	MBUH-06040-F	M6X1.0	10	8	40	6	1.5	28	—	7	2,061
MBUH-06040-D-T	MBUH-06040-F-T	M6X1.0	10	8	40	6	3	28	—	7	2,061
MBUH-08012-D	MBUH-08012-F	M8X1.25	13	11.5	12	8.5	1.5	24	—	10	3,450
MBUH-08012-D-T	MBUH-08012-F-T	M8X1.25	13	11.5	12	8.5	3	24	—	10	3,450
MBUH-08025-D	MBUH-08025-F	M8X1.25	13	11.5	25	8.5	1.5	24	—	10	3,450
MBUH-08025-D-T	MBUH-08025-F-T	M8X1.25	13	11.5	25	8.5	3	24	—	10	3,450
MBUH-08040-D	MBUH-08040-F	M8X1.25	13	11.5	40	8.5	1.5	24	—	10	3,450
MBUH-08040-D-T	MBUH-08040-F-T	M8X1.25	13	11.5	40	8.5	3	24	—	10	3,450
MBUH-10015-D	MBUH-10015-F	M10X1.5	17	13	15	10	4	42	3	13	4,194
MBUH-10015-D-T	MBUH-10015-F-T	M10X1.5	17	13	15	10	6	42	3	13	4,194
MBUH-10030-D	MBUH-10030-F	M10X1.5	17	13	30	10	4	42	3	13	4,194
MBUH-10030-D-T	MBUH-10030-F-T	M10X1.5	17	13	30	10	6	42	3	13	4,194
MBUH-10050-D	MBUH-10050-F	M10X1.5	17	13	50	10	4	42	3	13	4,194
MBUH-10050-D-T	MBUH-10050-F-T	M10X1.5	17	13	50	10	6	42	3	13	4,194
MBUH-12020-D	MBUH-12020-F	M12X1.75	19	15	20	12	4	45	5	15	6,627
MBUH-12020-D-T	MBUH-12020-F-T	M12X1.75	19	15	20	12	6	45	5	15	6,627
MBUH-12040-D	MBUH-12040-F	M12X1.75	19	15	40	12	4	45	5	15	6,627
MBUH-12040-D-T	MBUH-12040-F-T	M12X1.75	19	15	40	12	6	45	5	15	6,627
MBUH-12060-D	MBUH-12060-F	M12X1.75	19	15	60	12	4	45	5	15	6,627
MBUH-12060-D-T	MBUH-12060-F-T	M12X1.75	19	15	60	12	6	45	5	15	6,627
MBUH-16025-D	MBUH-16025-F	M16X2.0	24	19	25	16	4	40	6	20	11,183
MBUH-16025-D-T	MBUH-16025-F-T	M16X2.0	24	19	25	16	6	40	6	20	11,183
MBUH-16050-D	MBUH-16050-F	M16X2.0	24	19	50	16	4	40	6	20	11,183
MBUH-16050-D-T	MBUH-16050-F-T	M16X2.0	24	19	50	16	6	40	6	20	11,183
MBUH-16080-D	MBUH-16080-F	M16X2.0	24	19	80	16	4	40	6	20	11,183
MBUH-16080-D-T	MBUH-16080-F-T	M16X2.0	24	19	80	16	6	40	6	20	11,183

*Load ratings do not apply to the delrin ball styles.

SWIVOTS® - REPLACEABLE SWIVEL BALL

Threaded Body | Stainless Ball | Inch & Metric Sof-Top Urethane Surface



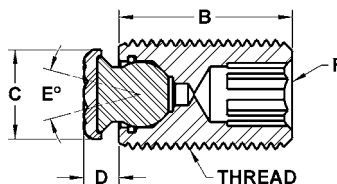
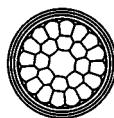
The replaceable ball swivels to allow for better self-alignment on uneven surfaces. A Viton O-ring holds the ball in place while keeping contaminants out and providing smooth ball movement. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The urethane surface is permanently bonded to a 300 series stainless steel ball. The non-marking, non-staining urethane provides excellent protection against damage on delicate work surfaces. The "bubbled" texture of the urethane top offers firm holding and allows air to escape so no suction is created between the contact surface and the top of the rest pad as it is compressed. Because the top is made of urethane it offers superior abrasion and wear resistance. They are available in three durometers to meet a wide variety of application needs. Replacement balls and O-rings can be ordered separately. See page 34 for diagram of components. Visit www.fairlaneproducts.com for compression load ratings. To order part, add desired durometer (xx) to the part number. Sample TBU-0370-FC-35UR.

INCH

Part #	Thread	B Thread Length	C Contact Dia.	D Stand Off	E Degree Swivel	F Int. Hex	Ball Dia.	Urethane Thickness	xx = Durometer
TBU-0370-FC-xxUR	3/8-16	1/2	.315	.143	28	3/16	3/16	.08	35 / 60 / 80
TBU-0375-FC-xxUR	3/8-16	1	.315	.143	28	3/16	3/16	.08	35 / 60 / 80
TBU-0375 X 2-FC-xxUR	3/8-16	2	.315	.143	28	3/16	3/16	.08	35 / 60 / 80
TBU-0375 X 3-FC-xxUR	3/8-16	3	.315	.143	28	3/16	3/16	.08	35 / 60 / 80
TBU-0230-FC-xxUR	3/8-24	1/2	.315	.143	28	3/16	3/16	.08	35 / 60 / 80
TBU-0231-FC-xxUR	3/8-24	1	.315	.143	28	3/16	3/16	.08	35 / 60 / 80
TBU-0231 X 2-FC-xxUR	3/8-24	2	.315	.143	28	3/16	3/16	.08	35 / 60 / 80
TBU-0231 X 3-FC-xxUR	3/8-24	3	.315	.143	28	3/16	3/16	.08	35 / 60 / 80
TBU-0513-FC-xxUR	1/2-13	3/4	.394	.174	28	1/4	9/32	.08	35 / 60 / 80
TBU-0510-FC-xxUR	1/2-13	1	.394	.174	28	1/4	9/32	.08	35 / 60 / 80
TBU-0510 X 2-FC-xxUR	1/2-13	2	.394	.174	28	1/4	9/32	.08	35 / 60 / 80
TBU-0510 X 3-FC-xxUR	1/2-13	3	.394	.174	28	1/4	9/32	.08	35 / 60 / 80
TBU-0503-FC-xxUR	1/2-20	3/4	.394	.174	28	1/4	9/32	.08	35 / 60 / 80
TBU-0500-FC-xxUR	1/2-20	1	.394	.174	28	1/4	9/32	.08	35 / 60 / 80
TBU-0500 X 2-FC-xxUR	1/2-20	2	.394	.174	28	1/4	9/32	.08	35 / 60 / 80
TBU-0500 X 3-FC-xxUR	1/2-20	3	.394	.174	28	1/4	9/32	.08	35 / 60 / 80
TBU-0625-FC-xxUR	5/8-11	1	.512	.205	28	5/16	3/8	.08	35 / 60 / 80
TBU-0625 X 2-FC-xxUR	5/8-11	2	.512	.205	28	5/16	3/8	.08	35 / 60 / 80
TBU-0625 X 3-FC-xxUR	5/8-11	3	.512	.205	28	5/16	3/8	.08	35 / 60 / 80
TBU-0620-FC-xxUR	5/8-18	1	.512	.205	28	5/16	3/8	.08	35 / 60 / 80
TBU-0620 X 2-FC-xxUR	5/8-18	2	.512	.205	28	5/16	3/8	.08	35 / 60 / 80
TBU-0620 X 3-FC-xxUR	5/8-18	3	.512	.205	28	5/16	3/8	.08	35 / 60 / 80
TBU-0755-FC-xxUR	3/4-10	1	.630	.205	28	3/8	1/2	.08	35 / 60 / 80
TBU-0755 X 2-FC-xxUR	3/4-10	2	.630	.205	28	3/8	1/2	.08	35 / 60 / 80
TBU-0755 X 3-FC-xxUR	3/4-10	3	.630	.205	28	3/8	1/2	.08	35 / 60 / 80
TBU-0750-FC-xxUR	3/4-16	1	.630	.205	28	3/8	1/2	.08	35 / 60 / 80
TBU-0750 X 2-FC-xxUR	3/4-16	2	.630	.205	28	3/8	1/2	.08	35 / 60 / 80
TBU-0750 X 3-FC-xxUR	3/4-16	3	.630	.205	28	3/8	1/2	.08	35 / 60 / 80
TBU-1108-FC-xxUR	1"-8	1	.827	.236	32	3/8	5/8	.08	35 / 60 / 80
TBU-1108 X 2-FC-xxUR	1"-8	2	.827	.236	32	3/8	5/8	.08	35 / 60 / 80
TBU-1108 X 3-FC-xxUR	1"-8	3	.827	.236	32	3/8	5/8	.08	35 / 60 / 80
TBU-1114-FC-xxUR	1"-14	1	.906	.236	32	3/8	3/4	.08	35 / 60 / 80
TBU-1114 X 2-FC-xxUR	1"-14	2	.906	.236	32	3/8	3/4	.08	35 / 60 / 80
TBU-1114 X 3-FC-xxUR	1"-14	3	.906	.236	32	3/8	3/4	.08	35 / 60 / 80

SWIVOTS® - REPLACEABLE SWIVEL BALL

Threaded Body | Stainless Ball | Inch & Metric (continued)
Sof-Top Urethane Surface

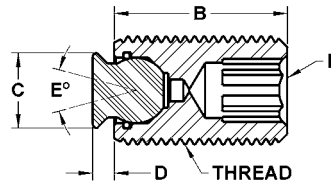
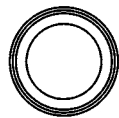


METRIC

Part #	Thread	B Thread Length	C Contact Dia.	D Stand Off	E Degree Swivel	F Int. Hex	Ball Dia.	Urethane Thickness	xx = Durometer
MTBU-10025-FC-xxUR	M10X1.5	25	8	3.5	28	5	5	2	35 / 60 / 80
MTBU-10035-FC-xxUR	M10X1.5	35	8	3.5	28	5	5	2	35 / 60 / 80
MTBU-10050-FC-xxUR	M10X1.5	50	8	3.5	28	5	5	2	35 / 60 / 80
MTBU-12025-FC-xxUR	M12X1.75	25	10	4	28	6	7	2	35 / 60 / 80
MTBU-12035-FC-xxUR	M12X1.75	35	10	4	28	6	7	2	35 / 60 / 80
MTBU-12050-FC-xxUR	M12X1.75	50	10	4	28	6	7	2	35 / 60 / 80
MTBU-16025-FC-xxUR	M16X2.0	25	13	5	28	8	10	2	35 / 60 / 80
MTBU-16035-FC-xxUR	M16X2.0	35	13	5	28	8	10	2	35 / 60 / 80
MTBU-16050-FC-xxUR	M16X2.0	50	13	5	28	8	10	2	35 / 60 / 80
MTBU-20030-FC-xxUR	M20X2.5	30	16	5	28	10	13	2	35 / 60 / 80
MTBU-20050-FC-xxUR	M20X2.5	50	16	5	28	10	13	2	35 / 60 / 80
MTBU-20070-FC-xxUR	M20X2.5	70	16	5	28	10	13	2	35 / 60 / 80
MTBU-24040-FC-xxUR	M24X3.0	40	21	6	24	10	15	2	35 / 60 / 80
MTBU-24080-FC-xxUR	M24X3.0	80	21	6	24	10	15	2	35 / 60 / 80

SWIVOTS® - REPLACEABLE SWIVEL BALL

Threaded Body | Flat Cone | Inch & Metric
Delrin | Stainless | Diamond Surface



The replaceable ball swivels to allow for self-alignment on uneven surfaces. The flat cone design provides a large contact surface for greater force distribution. A Viton O-ring holds the ball in place while keeping contaminants out and providing smooth ball movement. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The delrin ball is made from non-marring white delrin. The stainless ball is made from 300 series stainless steel. The diamond style has a diamond abrasive surface that is permanently fused to a 300 series stainless steel pad. The surface texture is comparable to a 100 grit abrasive. They are ideal for holding smooth or slippery applications with a minimum of clamping pressure. Individual diamond particles transfer holding pressure to a very small and well distributed area, providing superior holding with minimal surface marking. The diamond surface provides unparalleled wear resistance. Replacement balls and O-rings can be ordered separately. See page 34 for diagram of components.

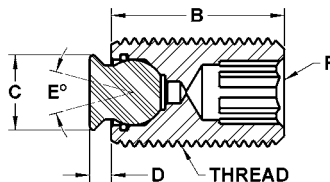
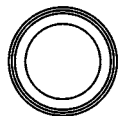
INCH

Delrin Part #	Stainless Part #	Diamond Part #	Thread	B Thread Length	C Contact Dia.	D Stand Off	E Degree Swivel	F Int. Hex	Ball Dia.	Load Rating Lbs.*
TBU-0370-DC	TBU-0370-FC	TBU-0370-FC-DS	3/8-16	1/2	.236	.063	28	3/16	3/16	1,763
TBU-0375-DC	TBU-0375-FC	TBU-0375-FC-DS	3/8-16	1	.236	.063	28	3/16	3/16	1,763
TBU-0375 X 2-DC	TBU-0375 X 2-FC	TBU-0375 X 2-FC-DS	3/8-16	2	.236	.063	28	3/16	3/16	1,763
TBU-0375 X 3-DC	TBU-0375 X 3-FC	TBU-0375 X 3-FC-DS	3/8-16	3	.236	.063	28	3/16	3/16	1,763
TBU-0230-DC	TBU-0230-FC	TBU-0230-FC-DS	3/8-24	1/2	.236	.063	28	3/16	3/16	1,763
TBU-0231-DC	TBU-0231-FC	TBU-0231-FC-DS	3/8-24	1	.236	.063	28	3/16	3/16	1,763
TBU-0231 X 2-DC	TBU-0231 X 2-FC	TBU-0231 X 2-FC-DS	3/8-24	2	.236	.063	28	3/16	3/16	1,763
TBU-0231 X 3-DC	TBU-0231 X 3-FC	TBU-0231 X 3-FC-DS	3/8-24	3	.236	.063	28	3/16	3/16	1,763
TBU-0513-DC	TBU-0513-FC	TBU-0513-FC-DS	1/2-13	3/4	.315	.094	28	1/4	9/32	4,527
TBU-0510-DC	TBU-0510-FC	TBU-0510-FC-DS	1/2-13	1	.315	.094	28	1/4	9/32	4,527
TBU-0510 X 2-DC	TBU-0510 X 2-FC	TBU-0510 X 2-FC-DS	1/2-13	2	.315	.094	28	1/4	9/32	4,527
TBU-0510 X 3-DC	TBU-0510 X 3-FC	TBU-0510 X 3-FC-DS	1/2-13	3	.315	.094	28	1/4	9/32	4,527
TBU-0503-DC	TBU-0503-FC	TBU-0503-FC-DS	1/2-20	3/4	.315	.094	28	1/4	9/32	4,527
TBU-0500-DC	TBU-0500-FC	TBU-0500-FC-DS	1/2-20	1	.315	.094	28	1/4	9/32	4,527
TBU-0500 X 2-DC	TBU-0500 X 2-FC	TBU-0500 X 2-FC-DS	1/2-20	2	.315	.094	28	1/4	9/32	4,527
TBU-0500 X 3-DC	TBU-0500 X 3-FC	TBU-0500 X 3-FC-DS	1/2-20	3	.315	.094	28	1/4	9/32	4,527
TBU-0625-DC	TBU-0625-FC	TBU-0625-FC-DS	5/8-11	1	.433	.125	28	5/16	3/8	6,131
TBU-0625 X 2-DC	TBU-0625 X 2-FC	TBU-0625 X 2-FC-DS	5/8-11	2	.433	.125	28	5/16	3/8	6,131
TBU-0625 X 3-DC	TBU-0625 X 3-FC	TBU-0625 X 3-FC-DS	5/8-11	3	.433	.125	28	5/16	3/8	6,131
TBU-0620-DC	TBU-0620-FC	TBU-0620-FC-DS	5/8-18	1	.433	.125	28	5/16	3/8	6,131
TBU-0620 X 2-DC	TBU-0620 X 2-FC	TBU-0620 X 2-FC-DS	5/8-18	2	.433	.125	28	5/16	3/8	6,131
TBU-0620 X 3-DC	TBU-0620 X 3-FC	TBU-0620 X 3-FC-DS	5/8-18	3	.433	.125	28	5/16	3/8	6,131
TBU-0755-DC	TBU-0755-FC	TBU-0755-FC-DS	3/4-10	1	.551	.125	28	3/8	1/2	8,150
TBU-0755 X 2-DC	TBU-0755 X 2-FC	TBU-0755 X 2-FC-DS	3/4-10	2	.551	.125	28	3/8	1/2	8,150
TBU-0755 X 3-DC	TBU-0755 X 3-FC	TBU-0755 X 3-FC-DS	3/4-10	3	.551	.125	28	3/8	1/2	8,150
TBU-0750-DC	TBU-0750-FC	TBU-0750-FC-DS	3/4-16	1	.551	.125	28	3/8	1/2	8,150
TBU-0750 X 2-DC	TBU-0750 X 2-FC	TBU-0750 X 2-FC-DS	3/4-16	2	.551	.125	28	3/8	1/2	8,150
TBU-0750 X 3-DC	TBU-0750 X 3-FC	TBU-0750 X 3-FC-DS	3/4-16	3	.551	.125	28	3/8	1/2	8,150
TBU-1108-DC	TBU-1108-FC	TBU-1108-FC-DS	1"-8	1	.748	.156	32	3/8	5/8	14,757
TBU-1108 X 2-DC	TBU-1108 X 2-FC	TBU-1108 X 2-FC-DS	1"-8	2	.748	.156	32	3/8	5/8	14,757
TBU-1108 X 3-DC	TBU-1108 X 3-FC	TBU-1108 X 3-FC-DS	1"-8	3	.748	.156	32	3/8	5/8	14,757
TBU-1114-DC	TBU-1114-FC	TBU-1114-FC-DS	1"-14	1	.827	.156	32	3/8	3/4	17,210
TBU-1114 X 2-DC	TBU-1114 X 2-FC	TBU-1114 X 2-FC-DS	1"-14	2	.827	.156	32	3/8	3/4	17,210
TBU-1114 X 3-DC	TBU-1114 X 3-FC	TBU-1114 X 3-FC-DS	1"-14	3	.827	.156	32	3/8	3/4	17,210

*Load ratings do not apply to the delrin ball styles.

SWIVOTS® - REPLACEABLE SWIVEL BALL

Threaded Body | Flat Cone | Inch & Metric (continued)
Delrin | Stainless | Diamond Surface



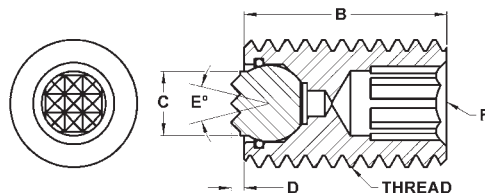
METRIC

Delrin Part #	Stainless Part #	Diamond Part #	Thread	B Thread Length	C Contact Dia.	D Stand Off	E Degree Swivel	F Int. Hex	Ball Dia.	Load Rating Lbs.*
MTBU-10025-DC	MTBU-10025-FC	MTBU-10025-FC-DS	M10X1.5	25	6	1.5	28	5	5	—
MTBU-10035-DC	MTBU-10035-FC	MTBU-10035-FC-DS	M10X1.5	35	6	1.5	28	5	5	—
MTBU-10050-DC	MTBU-10050-FC	MTBU-10050-FC-DS	M10X1.5	50	6	1.5	28	5	5	—
MTBU-12025-DC	MTBU-12025-FC	MTBU-12025-FC-DS	M12X1.75	25	8	2	28	6	7	3,440
MTBU-12035-DC	MTBU-12035-FC	MTBU-12035-FC-DS	M12X1.75	35	8	2	28	6	7	3,440
MTBU-12050-DC	MTBU-12050-FC	MTBU-12050-FC-DS	M12X1.75	50	8	2	28	6	7	3,440
MTBU-16025-DC	MTBU-16025-FC	MTBU-16025-FC-DS	M16X2.0	25	11	3	28	8	10	5,190
MTBU-16035-DC	MTBU-16035-FC	MTBU-16035-FC-DS	M16X2.0	35	11	3	28	8	10	5,190
MTBU-16050-DC	MTBU-16050-FC	MTBU-16050-FC-DS	M16X2.0	50	11	3	28	8	10	5,190
MTBU-20030-DC	MTBU-20030-FC	MTBU-20030-FC-DS	M20X2.5	30	14	3	28	10	13	8,379
MTBU-20050-DC	MTBU-20050-FC	MTBU-20050-FC-DS	M20X2.5	50	14	3	28	10	13	8,379
MTBU-20070-DC	MTBU-20070-FC	MTBU-20070-FC-DS	M20X2.5	70	14	3	28	10	13	8,379
MTBU-24040-DC	MTBU-24040-FC	MTBU-24040-FC-DS	M24X3.0	40	19	4	24	10	15	12,233
MTBU-24080-DC	MTBU-24080-FC	MTBU-24080-FC-DS	M24X3.0	80	19	4	24	10	15	12,233

*Load ratings do not apply to the delrin ball styles.

SWIVOTS® - REPLACEABLE SWIVEL BALL

Threaded Body | Serrated | Inch & Metric Tool Steel



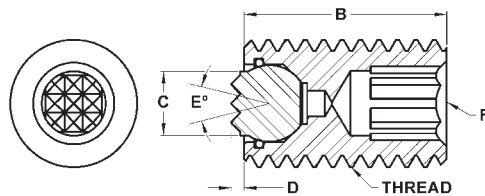
The replaceable serrated ball swivels to allow for self-alignment on uneven surfaces. A Viton O-ring holds the ball in place while keeping contaminants out and providing smooth ball movement. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The replaceable ball is made from M-2 high speed steel heat treated to Rc 60/62. Replacement balls and O-rings can be ordered separately. See page 34 for diagram of components. See page 4 for tooth pattern specifications.

INCH

Part #	Thread	B Thread Length	C Contact Dia.	D Stand Off	E Degree Swivel	F Hex	Ball Dia.	Tooth Pattern	Load Rating Lbs.
TBU-0370-S	3/8-16	1/2	5/32	1/16	28	3/16	3/16	SF	1,763
TBU-0375-S	3/8-16	1	5/32	1/16	28	3/16	3/16	SF	1,763
TBU-0375 X 2-S	3/8-16	2	5/32	1/16	28	3/16	3/16	SF	1,763
TBU-0375 X 3-S	3/8-16	3	5/32	1/16	28	3/16	3/16	SF	1,763
TBU-0230-S	3/8-24	1/2	5/32	1/16	28	3/16	3/16	SF	1,763
TBU-0231-S	3/8-24	1	5/32	1/16	28	3/16	3/16	SF	1,763
TBU-0231 X 2-S	3/8-24	2	5/32	1/16	28	3/16	3/16	SF	1,763
TBU-0231 X 3-S	3/8-24	3	5/32	1/16	28	3/16	3/16	SF	1,763
TBU-0513-S	1/2-13	3/4	1/4	1/16	28	1/4	9/32	SF	4,527
TBU-0513-S-T	1/2-13	3/4	1/4	1/8	28	1/4	9/32	SF	4,527
TBU-0510-S	1/2-13	1	1/4	1/16	28	1/4	9/32	SF	4,527
TBU-0510-S-T	1/2-13	1	1/4	1/8	28	1/4	9/32	SF	4,527
TBU-0510 X 2-S	1/2-13	2	1/4	1/16	28	1/4	9/32	SF	4,527
TBU-0510 X 2-S-T	1/2-13	2	1/4	1/8	28	1/4	9/32	SF	4,527
TBU-0510 X 3-S	1/2-13	3	1/4	1/16	28	1/4	9/32	SF	4,527
TBU-0510 X 3-S-T	1/2-13	3	1/4	1/8	28	1/4	9/32	SF	4,527
TBU-0503-S	1/2-20	3/4	1/4	1/16	28	1/4	9/32	SF	4,527
TBU-0503-S-T	1/2-20	3/4	1/4	1/8	28	1/4	9/32	SF	4,527
TBU-0500-S	1/2-20	1	1/4	1/16	28	1/4	9/32	SF	4,527
TBU-0500-S-T	1/2-20	1	1/4	1/8	28	1/4	9/32	SF	4,527
TBU-0500 X 2-S	1/2-20	2	1/4	1/16	28	1/4	9/32	SF	4,527
TBU-0500 X 2-S-T	1/2-20	2	1/4	1/8	28	1/4	9/32	SF	4,527
TBU-0500 X 3-S	1/2-20	3	1/4	1/16	28	1/4	9/32	SF	4,527
TBU-0500 X 3-S-T	1/2-20	3	1/4	1/8	28	1/4	9/32	SF	4,527
TBU-0625-S	5/8-11	1	5/16	1/16	28	5/16	3/8	EF	6,131
TBU-0625-S-T	5/8-11	1	5/16	1/8	28	5/16	3/8	EF	6,131
TBU-0625-SF	5/8-11	1	5/16	1/16	28	5/16	3/8	SF	6,131
TBU-0625-SF-T	5/8-11	1	5/16	1/8	28	5/16	3/8	SF	6,131
TBU-0625 X 2-S	5/8-11	2	5/16	1/16	28	5/16	3/8	EF	6,131
TBU-0625 X 2-S-T	5/8-11	2	5/16	1/8	28	5/16	3/8	EF	6,131
TBU-0625 X 2-SF	5/8-11	2	5/16	1/16	28	5/16	3/8	SF	6,131
TBU-0625 X 2-SF-T	5/8-11	2	5/16	1/8	28	5/16	3/8	SF	6,131
TBU-0625 X 3-S	5/8-11	3	5/16	1/16	28	5/16	3/8	EF	6,131
TBU-0625 X 3-S-T	5/8-11	3	5/16	1/8	28	5/16	3/8	EF	6,131
TBU-0625 X 3-SF	5/8-11	3	5/16	1/16	28	5/16	3/8	SF	6,131
TBU-0625 X 3-SF-T	5/8-11	3	5/16	1/8	28	5/16	3/8	SF	6,131
TBU-0620-S	5/8-18	1	5/16	1/16	28	5/16	3/8	EF	6,131
TBU-0620-S-T	5/8-18	1	5/16	1/8	28	5/16	3/8	EF	6,131
TBU-0620-SF	5/8-18	1	5/16	1/16	28	5/16	3/8	SF	6,131
TBU-0620-SF-T	5/8-18	1	5/16	1/8	28	5/16	3/8	SF	6,131
TBU-0620 X 2-S	5/8-18	2	5/16	1/16	28	5/16	3/8	EF	6,131
TBU-0620 X 2-S-T	5/8-18	2	5/16	1/8	28	5/16	3/8	EF	6,131
TBU-0620 X 2-SF	5/8-18	2	5/16	1/16	28	5/16	3/8	SF	6,131
TBU-0620 X 2-SF-T	5/8-18	2	5/16	1/8	28	5/16	3/8	SF	6,131
TBU-0620 X 3-S	5/8-18	3	5/16	1/16	28	5/16	3/8	EF	6,131
TBU-0620 X 3-S-T	5/8-18	3	5/16	1/8	28	5/16	3/8	EF	6,131
TBU-0620 X 3-SF	5/8-18	3	5/16	1/16	28	5/16	3/8	SF	6,131
TBU-0620 X 3-SF-T	5/8-18	3	5/16	1/8	28	5/16	3/8	SF	6,131

SWIVOTS® - REPLACEABLE SWIVEL BALL

Threaded Body | Serrated | Inch & Metric (continued) Tool Steel

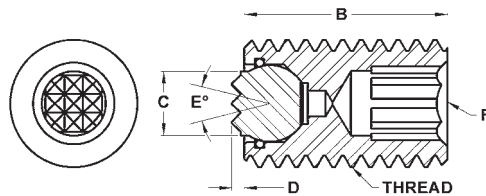


INCH (CONTINUED)

Part #	Thread	B Thread Length	C Contact Dia.	D Stand Off	E Degree Swivel	F Hex	Ball Dia.	Tooth Pattern	Load Rating Lbs.
TBU-0755-S	3/4-10	1	3/8	1/8	40	3/8	1/2	EF	8,150
TBU-0755-S-T	3/4-10	1	3/8	1/4	40	3/8	1/2	EF	8,150
TBU-0755-SF	3/4-10	1	3/8	1/8	40	3/8	1/2	SF	8,150
TBU-0755-SF-T	3/4-10	1	3/8	1/4	40	3/8	1/2	SF	8,150
TBU-0755 X 2-S	3/4-10	2	3/8	1/8	40	3/8	1/2	EF	8,150
TBU-0755 X 2-S-T	3/4-10	2	3/8	1/4	40	3/8	1/2	EF	8,150
TBU-0755 X 2-SF	3/4-10	2	3/8	1/8	40	3/8	1/2	SF	8,150
TBU-0755 X 2-SF-T	3/4-10	2	3/8	1/4	40	3/8	1/2	SF	8,150
TBU-0755 X 3-S	3/4-10	3	3/8	1/8	40	3/8	1/2	EF	8,150
TBU-0755 X 3-S-T	3/4-10	3	3/8	1/4	40	3/8	1/2	EF	8,150
TBU-0755 X 3-SF	3/4-10	3	3/8	1/8	40	3/8	1/2	SF	8,150
TBU-0755 X 3-SF-T	3/4-10	3	3/8	1/4	40	3/8	1/2	SF	8,150
TBU-0750-S	3/4-16	1	3/8	1/8	40	3/8	1/2	EF	8,150
TBU-0750-S-T	3/4-16	1	3/8	1/4	40	3/8	1/2	EF	8,150
TBU-0750-SF	3/4-16	1	3/8	1/8	40	3/8	1/2	SF	8,150
TBU-0750-SF-T	3/4-16	1	3/8	1/4	40	3/8	1/2	SF	8,150
TBU-0750 X 2-S	3/4-16	2	3/8	1/8	40	3/8	1/2	EF	8,150
TBU-0750 X 2-S-T	3/4-16	2	3/8	1/4	40	3/8	1/2	EF	8,150
TBU-0750 X 2-SF	3/4-16	2	3/8	1/8	40	3/8	1/2	SF	8,150
TBU-0750 X 2-SF-T	3/4-16	2	3/8	1/4	40	3/8	1/2	SF	8,150
TBU-0750 X 3-S	3/4-16	3	3/8	1/8	40	3/8	1/2	EF	8,150
TBU-0750 X 3-S-T	3/4-16	3	3/8	1/4	40	3/8	1/2	EF	8,150
TBU-0750 X 3-SF	3/4-16	3	3/8	1/8	40	3/8	1/2	SF	8,150
TBU-0750 X 3-SF-T	3/4-16	3	3/8	1/4	40	3/8	1/2	SF	8,150
TBU-1108-S	1"-8	1	1/2	1/8	40	3/8	5/8	Fine	14,757
TBU-1108-S-T	1"-8	1	1/2	1/4	40	3/8	5/8	Fine	14,757
TBU-1108-EF	1"-8	1	1/2	1/8	40	3/8	5/8	EF	14,757
TBU-1108-EF-T	1"-8	1	1/2	1/4	40	3/8	5/8	EF	14,757
TBU-1108-SF	1"-8	1	1/2	1/8	40	3/8	5/8	SF	14,757
TBU-1108-SF-T	1"-8	1	1/2	1/4	40	3/8	5/8	SF	14,757
TBU-1108 X 2-S	1"-8	2	1/2	1/8	40	3/8	5/8	Fine	14,757
TBU-1108 X 2-S-T	1"-8	2	1/2	1/4	40	3/8	5/8	Fine	14,757
TBU-1108 X 2-EF	1"-8	2	1/2	1/8	40	3/8	5/8	EF	14,757
TBU-1108 X 2-EF-T	1"-8	2	1/2	1/4	40	3/8	5/8	EF	14,757
TBU-1108 X 2-SF	1"-8	2	1/2	1/8	40	3/8	5/8	SF	14,757
TBU-1108 X 2-SF-T	1"-8	2	1/2	1/4	40	3/8	5/8	SF	14,757
TBU-1108 X 3-S	1"-8	3	1/2	1/8	40	3/8	5/8	Fine	14,757
TBU-1108 X 3-S-T	1"-8	3	1/2	1/4	40	3/8	5/8	Fine	14,757
TBU-1108 X 3-EF	1"-8	3	1/2	1/8	40	3/8	5/8	EF	14,757
TBU-1108 X 3-EF-T	1"-8	3	1/2	1/4	40	3/8	5/8	EF	14,757
TBU-1108 X 3-SF	1"-8	3	1/2	1/8	40	3/8	5/8	SF	14,757
TBU-1108 X 3-SF-T	1"-8	3	1/2	1/4	40	3/8	5/8	SF	14,757
TBU-1114-S	1"-14	1	5/8	1/8	34	3/8	3/4	Fine	14,757
TBU-1114-S-T	1"-14	1	5/8	1/4	34	3/8	3/4	Fine	14,757
TBU-1114-EF	1"-14	1	5/8	1/8	34	3/8	3/4	EF	14,757
TBU-1114-EF-T	1"-14	1	5/8	1/4	34	3/8	3/4	EF	14,757
TBU-1114 X 2-S	1"-14	2	5/8	1/8	34	3/8	3/4	Fine	14,757
TBU-1114 X 2-S-T	1"-14	2	5/8	1/4	34	3/8	3/4	Fine	14,757
TBU-1114 X 2-EF	1"-14	2	5/8	1/8	34	3/8	3/4	EF	14,757
TBU-1114 X 2-EF-T	1"-14	2	5/8	1/4	34	3/8	3/4	EF	14,757
TBU-1114 X 3-S	1"-14	3	5/8	1/8	34	3/8	3/4	Fine	14,757
TBU-1114 X 3-S-T	1"-14	3	5/8	1/4	34	3/8	3/4	Fine	14,757
TBU-1114 X 3-EF	1"-14	3	5/8	1/8	34	3/8	3/4	EF	14,757
TBU-1114 X 3-EF-T	1"-14	3	5/8	1/4	34	3/8	3/4	EF	14,757

SWIVOTS® - REPLACEABLE SWIVEL BALL

Threaded Body | Serrated | Inch & Metric (continued) Tool Steel

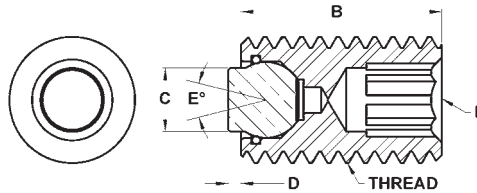


METRIC

Part #	Thread	B Thread Length	C Contact Dia.	D Stand Off	E Degree Swivel	F Hex	Ball Dia.	Tooth Pattern	Load Rating Lbs.
MTBU-10025-S	M10X1.50	25	4	1.5	30	5	5	SF	—
MTBU-10035-S	M10X1.50	35	4	1.5	30	5	5	SF	—
MTBU-10050-S	M10X1.50	50	4	1.5	30	5	5	SF	—
MTBU-12025-S	M12X1.75	25	6	1.5	28	6	7	SF	3,440
MTBU-12025-S-T	M12X1.75	25	6	3	28	6	7	SF	3,440
MTBU-12035-S	M12X1.75	35	6	1.5	28	6	7	SF	3,440
MTBU-12035-S-T	M12X1.75	35	6	3	28	6	7	SF	3,440
MTBU-12050-S	M12X1.75	50	6	1.5	28	6	7	SF	3,440
MTBU-12050-S-T	M12X1.75	50	6	3	28	6	7	SF	3,440
MTBU-16025-S	M16X2.0	25	8.5	1.5	24	8	10	EF	5,190
MTBU-16025-S-T	M16X2.0	25	8.5	3	24	8	10	EF	5,190
MTBU-16035-S	M16X2.0	35	8.5	1.5	24	8	10	EF	5,190
MTBU-16035-S-T	M16X2.0	35	8.5	3	24	8	10	EF	5,190
MTBU-16050-S	M16X2.0	50	8.5	1.5	24	8	10	EF	5,190
MTBU-16050-S-T	M16X2.0	50	8.5	3	24	8	10	EF	5,190
MTBU-20030-S	M20X2.5	30	10	4	42	10	13	EF	8,379
MTBU-20030-S-T	M20X2.5	30	10	6	42	10	13	EF	8,379
MTBU-20050-S	M20X2.5	50	10	4	42	10	13	EF	8,379
MTBU-20050-S-T	M20X2.5	50	10	6	42	10	13	EF	8,379
MTBU-20070-S	M20X2.5	70	10	4	42	10	13	EF	8,379
MTBU-20070-S-T	M20X2.5	70	10	6	42	10	13	EF	8,379
MTBU-24040-S	M24X3.0	40	12	4	45	10	15	Fine	12,233
MTBU-24040-S-T	M24X3.0	40	12	6	45	10	15	Fine	12,233
MTBU-24080-S	M24X3.0	80	12	4	45	10	15	Fine	12,233
MTBU-24080-S-T	M24X3.0	80	12	6	45	10	15	Fine	12,233

SWIVOTS® - REPLACEABLE SWIVEL BALL

Threaded Body | Flat Ball | Inch & Metric Delrin | Tool Steel



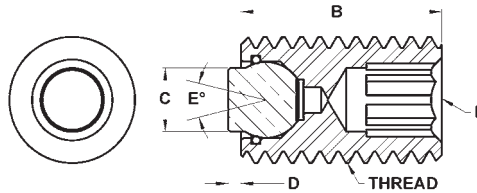
The replaceable flat ball swivels to allow for self-alignment on uneven surfaces. A Viton O-ring holds the ball in place while keeping contaminants out and providing smooth ball movement. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The delrin ball is made from non-marring white delrin. The steel ball is made from M-2 high speed steel heat treated to Rc 60/62. Replacement balls and O-rings can be ordered separately. See page 34 for diagram of components.

INCH

Delrin Part #	Steel Part #	Thread	B Thread Length	C Contact Dia.	D Stand Off	E Degree Swivel	F Int. Hex	Ball Dia.	Load Rating Lbs.*
TBU-0370-D	TBU-0370-F	3/8-16	1/2	5/32	1/16	28	3/16	3/16	1,763
TBU-0375-D	TBU-0375-F	3/8-16	1	5/32	1/16	28	3/16	3/16	1,763
TBU-0375 X 2-D	TBU-0375 X 2-F	3/8-16	2	5/32	1/16	28	3/16	3/16	1,763
TBU-0375 X 3-D	TBU-0375 X 3-F	3/8-16	3	5/32	1/16	28	3/16	3/16	1,763
TBU-0230-D	TBU-0230-F	3/8-24	1/2	5/32	1/16	28	3/16	3/16	1,763
TBU-0231-D	TBU-0231-F	3/8-24	1	5/32	1/16	28	3/16	3/16	1,763
TBU-0231 X 2-D	TBU-0231 X 2-F	3/8-24	2	5/32	1/16	28	3/16	3/16	1,763
TBU-0231 X 3-D	TBU-0231 X 3-F	3/8-24	3	5/32	1/16	28	3/16	3/16	1,763
TBU-0513-D	TBU-0513-F	1/2-13	3/4	1/4	1/16	28	1/4	9/32	4,527
TBU-0513-D-T	TBU-0513-F-T	1/2-13	3/4	1/4	1/8	28	1/4	9/32	4,527
TBU-0510-D	TBU-0510-F	1/2-13	1	1/4	1/16	28	1/4	9/32	4,527
TBU-0510-D-T	TBU-0510-F-T	1/2-13	1	1/4	1/8	28	1/4	9/32	4,527
TBU-0510 X 2-D	TBU-0510 X 2-F	1/2-13	2	1/4	1/16	28	1/4	9/32	4,527
TBU-0510 X 2-D-T	TBU-0510 X 2-F-T	1/2-13	2	1/4	1/8	28	1/4	9/32	4,527
TBU-0510 X 3-D	TBU-0510 X 3-F	1/2-13	3	1/4	1/16	28	1/4	9/32	4,527
TBU-0510 X 3-D-T	TBU-0510 X 3-F-T	1/2-13	3	1/4	1/8	28	1/4	9/32	4,527
TBU-0503-D	TBU-0503-F	1/2-20	3/4	1/4	1/16	28	1/4	9/32	4,527
TBU-0503-D-T	TBU-0503-F-T	1/2-20	3/4	1/4	1/8	28	1/4	9/32	4,527
TBU-0500-D	TBU-0500-F	1/2-20	1	1/4	1/16	28	1/4	9/32	4,527
TBU-0500-D-T	TBU-0500-F-T	1/2-20	1	1/4	1/8	28	1/4	9/32	4,527
TBU-0500 X 2-D	TBU-0500 X 2-F	1/2-20	2	1/4	1/16	28	1/4	9/32	4,527
TBU-0500 X 2-D-T	TBU-0500 X 2-F-T	1/2-20	2	1/4	1/8	28	1/4	9/32	4,527
TBU-0500 X 3-D	TBU-0500 X 3-F	1/2-20	3	1/4	1/16	28	1/4	9/32	4,527
TBU-0500 X 3-D-T	TBU-0500 X 3-F-T	1/2-20	3	1/4	1/8	28	1/4	9/32	4,527
TBU-0625-D	TBU-0625-F	5/8-11	1	5/16	1/16	28	5/16	3/8	6,131
TBU-0625-D-T	TBU-0625-F-T	5/8-11	1	5/16	1/8	28	5/16	3/8	6,131
TBU-0625 X 2-D	TBU-0625 X 2-F	5/8-11	2	5/16	1/16	28	5/16	3/8	6,131
TBU-0625 X 2-D-T	TBU-0625 X 2-F-T	5/8-11	2	5/16	1/8	28	5/16	3/8	6,131
TBU-0625 X 3-D	TBU-0625 X 3-F	5/8-11	3	5/16	1/16	28	5/16	3/8	6,131
TBU-0625 X 3-D-T	TBU-0625 X 3-F-T	5/8-11	3	5/16	1/8	28	5/16	3/8	6,131
TBU-0620-D	TBU-0620-F	5/8-18	1	5/16	1/16	28	5/16	3/8	6,131
TBU-0620-D-T	TBU-0620-F-T	5/8-18	1	5/16	1/8	28	5/16	3/8	6,131
TBU-0620 X 2-D	TBU-0620 X 2-F	5/8-18	2	5/16	1/16	28	5/16	3/8	6,131
TBU-0620 X 2-D-T	TBU-0620 X 2-F-T	5/8-18	2	5/16	1/8	28	5/16	3/8	6,131
TBU-0620 X 3-D	TBU-0620 X 3-F	5/8-18	3	5/16	1/16	28	5/16	3/8	6,131
TBU-0620 X 3-D-T	TBU-0620 X 3-F-T	5/8-18	3	5/16	1/8	28	5/16	3/8	6,131
TBU-0755-D	TBU-0755-F	3/4-10	1	3/8	1/8	40	3/8	1/2	8,150
TBU-0755-D-T	TBU-0755-F-T	3/4-10	1	3/8	1/4	40	3/8	1/2	8,150
TBU-0755 X 2-D	TBU-0755 X 2-F	3/4-10	2	3/8	1/8	40	3/8	1/2	8,150
TBU-0755 X 2-D-T	TBU-0755 X 2-F-T	3/4-10	2	3/8	1/4	40	3/8	1/2	8,150
TBU-0755 X 3-D	TBU-0755 X 3-F	3/4-10	3	3/8	1/8	40	3/8	1/2	8,150
TBU-0755 X 3-D-T	TBU-0755 X 3-F-T	3/4-10	3	3/8	1/4	40	3/8	1/2	8,150
TBU-0750-D	TBU-0750-F	3/4-16	1	3/8	1/8	40	3/8	1/2	8,150
TBU-0750-D-T	TBU-0750-F-T	3/4-16	1	3/8	1/4	40	3/8	1/2	8,150
TBU-0750 X 2-D	TBU-0750 X 2-F	3/4-16	2	3/8	1/8	40	3/8	1/2	8,150
TBU-0750 X 2-D-T	TBU-0750 X 2-F-T	3/4-16	2	3/8	1/4	40	3/8	1/2	8,150
TBU-0750 X 3-D	TBU-0750 X 3-F	3/4-16	3	3/8	1/8	40	3/8	1/2	8,150
TBU-0750 X 3-D-T	TBU-0750 X 3-F-T	3/4-16	3	3/8	1/4	40	3/8	1/2	8,150

SWIVOTS® - REPLACEABLE SWIVEL BALL

Threaded Body | Flat Ball | Inch & Metric (continued)
Delrin | Tool Steel



INCH (CONTINUED)

Delrin Part #	Steel Part #	Thread	B Thread Length	C Contact Dia.	D Stand Off	E Degree Swivel	F Int. Hex	Ball Dia.	Load Rating Lbs.*
TBU-1108-D	TBU-1108-F	1"-8	1	1/2	1/8	40	3/8	5/8	14,757
TBU-1108-D-T	TBU-1108-F-T	1"-8	1	1/2	1/4	40	3/8	5/8	14,757
TBU-1108 X 2-D	TBU-1108 X 2-F	1"-8	2	1/2	1/8	40	3/8	5/8	14,757
TBU-1108 X 2-D-T	TBU-1108 X 2-F-T	1"-8	2	1/2	1/4	40	3/8	5/8	14,757
TBU-1108 X 3-D	TBU-1108 X 3-F	1"-8	3	1/2	1/8	40	3/8	5/8	14,757
TBU-1108 X 3-D-T	TBU-1108 X 3-F-T	1"-8	3	1/2	1/4	40	3/8	5/8	14,757
TBU-1114-D	TBU-1114-F	1"-14	1	5/8	1/8	34	3/8	3/4	17,210
TBU-1114-D-T	TBU-1114-F-T	1"-14	1	5/8	1/4	34	3/8	3/4	17,210
TBU-1114 X 2-D	TBU-1114 X 2-F	1"-14	2	5/8	1/8	34	3/8	3/4	17,210
TBU-1114 X 2-D-T	TBU-1114 X 2-F-T	1"-14	2	5/8	1/4	34	3/8	3/4	17,210
TBU-1114 X 3-D	TBU-1114 X 3-F	1"-14	3	5/8	1/8	34	3/8	3/4	17,210
TBU-1114 X 3-D-T	TBU-1114 X 3-F-T	1"-14	3	5/8	1/4	34	3/8	3/4	17,210

*Load ratings do not apply to the delrin ball styles.

METRIC

Delrin Part #	Steel Part #	Thread	B Thread Length	C Contact Dia.	D Stand Off	E Degree Swivel	F Int. Hex	Ball Dia.	Load Rating Lbs.*
MTBU-12025-D	MTBU-12025-F	M12X1.75	25	6	1.5	28	6	7	3,440
MTBU-12025-D-T	MTBU-12025-F-T	M12X1.75	25	6	3	28	6	7	3,440
MTBU-12035-D	MTBU-12035-F	M12X1.75	35	6	1.5	28	6	7	3,440
MTBU-12035-D-T	MTBU-12035-F-T	M12X1.75	35	6	3	28	6	7	3,440
MTBU-12050-D	MTBU-12050-F	M12X1.75	50	6	1.5	28	6	7	3,440
MTBU-12050-D-T	MTBU-12050-F-T	M12X1.75	50	6	3	28	6	7	3,440
MTBU-16025-D	MTBU-16025-F	M16X2.0	25	8.5	1.5	24	8	10	5,190
MTBU-16025-D-T	MTBU-16025-F-T	M16X2.0	25	8.5	3	24	8	10	5,190
MTBU-16035-D	MTBU-16035-F	M16X2.0	35	8.5	1.5	24	8	10	5,190
MTBU-16035-D-T	MTBU-16035-F-T	M16X2.0	35	8.5	3	24	8	10	5,190
MTBU-16050-D	MTBU-16050-F	M16X2.0	50	8.5	1.5	24	8	10	5,190
MTBU-16050-D-T	MTBU-16050-F-T	M16X2.0	50	8.5	3	24	8	10	5,190
MTBU-20030-D	MTBU-20030-F	M20X2.5	30	10	4	42	10	13	8,379
MTBU-20030-D-T	MTBU-20030-F-T	M20X2.5	30	10	6	42	10	13	8,379
MTBU-20050-D	MTBU-20050-F	M20X2.5	50	10	4	42	10	13	8,379
MTBU-20050-D-T	MTBU-20050-F-T	M20X2.5	50	10	6	42	10	13	8,379
MTBU-20070-D	MTBU-20070-F	M20X2.5	70	10	4	42	10	13	8,379
MTBU-20070-D-T	MTBU-20070-F-T	M20X2.5	70	10	6	42	10	13	8,379
MTBU-24040-D	MTBU-24040-F	M24X3.0	40	12	4	45	10	15	12,233
MTBU-24040-D-T	MTBU-24040-F-T	M24X3.0	40	12	6	45	10	15	12,233
MTBU-24080-D	MTBU-24080-F	M24X3.0	80	12	4	45	10	15	12,233
MTBU-24080-D-T	MTBU-24080-F-T	M24X3.0	80	12	6	45	10	15	12,233

*Load ratings do not apply to the delrin ball styles.

Swivots® Replaceable Swivel Pad Style

These Replaceable Pad Style Swivots® are found on the following pages.

REPLACEABLE PADS

Sof-Top
Urethane Surface
Stainless



Flat
Delrin



Flat
Stainless



Flat
Steel



Flat
Carbide
Tipped



Abrasive
Diamond
Stainless



Serrated
Tool Steel,
Carbide Tipped
or Solid Carbide



STAINLESS BALL CUP



LOCK SCREW



VITON O-RING



HOUSINGS



Base Design



Hex Head
Design



Threaded
Body Design

Load Calculator

To calculate the load on the contact surface, divide the torque applied (in/lbs) by a factor shown below. Assumes no lubrication threaded into steel. Use as a guideline only.

Note: Contact surface load calculator does not apply for serrated contact points.

INCH			
Thread	Factor	Thread	Factor
#10-24	0.036	1/2-13	0.093
#10-32	0.035	1/2-20	0.091
1/4-20	0.047	5/8-11	0.116
1/4-28	0.046	5/8-18	0.113
5/16-18	0.059	3/4-10	0.138
5/16-24	0.058	3/4-16	0.135
3/8-16	0.070	1-8	0.183
3/8-24	0.068	1-14	0.180

METRIC			
Thread	Factor	Thread	Factor
M6x1.00	0.044	M16x2.00	0.116
M8x1.25	0.058	M20x2.50	0.144
M10x1.50	0.073	M24x3.00	0.173
M12x1.75	0.087		

■ These Replaceable Pad Style Swivots are a modular component system that allows the pad and ball cup to swivel, tilt, clamp, grip, hold, position or secure work pieces. The internal ball cup allows the pad to rotate 360 degrees and tilt at varying degrees in any direction from the centerline.

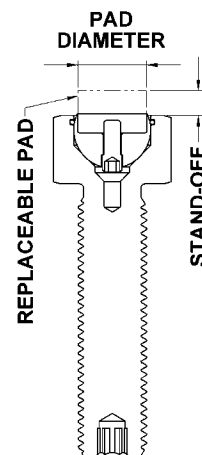
■ The interchangeable parts help to speed set ups and changeovers. The Replaceable Pads allow you to easily change the pad when worn or another style is needed for an application. The swivel assemblies include the housing, O-ring, lock screw and ball cup. Pads must be ordered separately.

■ The ball cup is held in place with an O-ring which allows the pad to swivel and keeps out dirt and other contaminants.

■ The pad can easily be replaced by pulling the ball cup out of the housing and unscrewing the lock screw which holds the pad into the ball cup.

To select the proper pad:

1. Determine the diameter of the pad for the housing assembly. This can be found on the following pages under "Replaceable Pad Dia."
2. Determine the "Stand Off" dimension required using the information below:



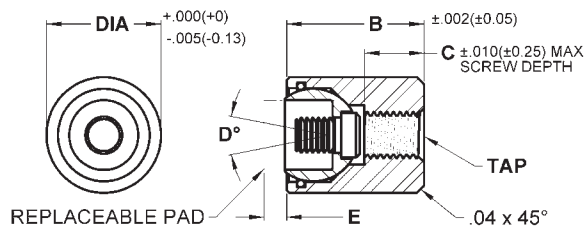
- 3/8" Pad Height provides 1/8" Stand Off
- 1/2" Pad Height provides 1/4" Stand Off
- 10mm Pad Height provides 4mm Stand Off
- 12mm Pad Height provides 6mm Stand Off

3. Select any Round Fixed Gripper or Rest Pad with the proper diameter and stand off that has a tapped hole.

If you need additional assistance selecting the proper pad or ordering replacement parts, please contact us.

SWIVOTS® - REPLACEABLE SWIVEL PAD

Base Design | Inch & Metric



The replaceable pad swivels to allow for self-alignment on uneven surfaces. Cylindrical body allows for installation in tight areas. The housing is tapped for backside fastening. The replaceable pad fits in a hardened (Rc 58/60) 440c stainless ball cup and is held in place with a lock screw. The pad can be replaced when worn or a different style pad is required. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The parts below are for the Swivot assembly only and do not include a pad. Pads must be ordered separately. See page 58 for diagram of components.

INCH

Part #	Dia.	Tap	B Length	C Screw Depth	D Degree Swivel	E* Stand Off 1	E* Stand Off 2	Ball Dia.	Replaceable Pad Dia.**	Load Rating Lbs.
BBU-500	5/8	1/4-28	3/4	15/64	20	1/8	1/4	1/2	3/8	5,849
BBU-600	13/16	5/16-24	7/8	11/32	24	1/8	1/4	5/8	1/2	10,925
BBU-700	15/16	3/8-24	7/8	9/32	22	1/8	1/4	3/4	5/8	13,325
BBU-800	1-1/8	1/2-20	15/16	17/64	20	1/8	1/4	7/8	3/4	18,863
BBU-1100	1-1/2	1/2-20	1-1/4	7/16	20	1/8	1/4	1-1/8	1	34,619

*E1 – Stand off with 3/8" height pad; E2 – Stand off with 1/2" height pad.

** Select any fixed gripper or rest pad with the proper diameter and tapped hole.

METRIC

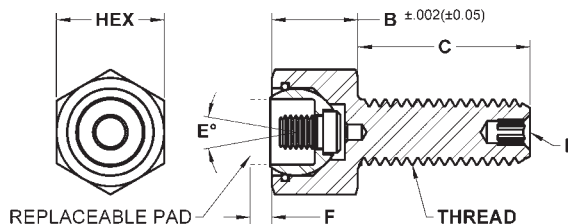
Part #	Dia.	Tap	B Length	C Screw Depth	D Degree Swivel	E* Stand Off 1	E* Stand Off 2	Ball Dia.	Replaceable Pad Dia.**	Load Rating Lbs.
MBBU-1722	17	M6X1.0	18	7.5	20	4	6	13	10	6,170
MBBU-1924	19	M8X1.25	20	8.5	20	4	6	15	12	8,688
MBBU-2428	24	M10X1.50	24	9	20	4	6	20	16	13,122
MBBU-3030	30	M12X1.75	26	8.5	20	4	6	23	20	21,348
MBBU-3636	36	M12X1.75	32	12	20	4	6	28	25	30,558

*E1 – Stand off with 10mm height pad; E2 – Stand off with 12mm height pad.

** Select any fixed gripper or rest pad with the proper diameter and tapped hole.

SWIVOTS® - REPLACEABLE SWIVEL PAD

Hex Head | Inch & Metric



The replaceable pad swivels to allow for self-alignment on uneven surfaces. The replaceable pad fits in a hardened (Rc 58/60) 440c stainless ball cup and is held in place with a lock screw. The pad can be replaced when worn or a different style pad is required. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The parts below are for the Swivot assembly only and do not include a pad. Pads must be ordered separately. See page 58 for diagram of components.

INCH

Part #	Thread	Hex	B Head Height	C Thread Length	D Int. Hex	E Degree Swivel	F* Stand Off 1	F* Stand Off 2	Ball Dia.	Replaceable Pad Dia.**	Load Rating Lbs.
BUH-0370	3/8-16	5/8	1/2	1/2	1/8	20	1/8	1/4	1/2	3/8	3,446
BUH-0375	3/8-16	5/8	1/2	1	1/8	20	1/8	1/4	1/2	3/8	3,446
BUH-0375 X 1.5	3/8-16	5/8	1/2	1-1/2	1/8	20	1/8	1/4	1/2	3/8	3,446
BUH-0230	3/8-24	5/8	1/2	1/2	1/8	20	1/8	1/4	1/2	3/8	3,446
BUH-0231	3/8-24	5/8	1/2	1	1/8	20	1/8	1/4	1/2	3/8	3,446
BUH-0231 X 1.5	3/8-24	5/8	1/2	1-1/2	1/8	20	1/8	1/4	1/2	3/8	3,446
BUH-0510	1/2-13	13/16	5/8	1	3/16	24	1/8	1/4	5/8	1/2	5,937
BUH-0515	1/2-13	13/16	5/8	1-1/2	3/16	24	1/8	1/4	5/8	1/2	5,937
BUH-0240	1/2-20	13/16	5/8	1	3/16	24	1/8	1/4	5/8	1/2	7,178
BUH-0500	1/2-20	13/16	5/8	1-1/2	3/16	24	1/8	1/4	5/8	1/2	7,178
BUH-0625	5/8-11	15/16	11/16	1	1/4	22	1/8	1/4	3/4	5/8	9,932
BUH-0625 X 2	5/8-11	15/16	11/16	2	1/4	22	1/8	1/4	3/4	5/8	9,932
BUH-0620	5/8-18	15/16	11/16	1	1/4	22	1/8	1/4	3/4	5/8	11,874
BUH-0620 X 2	5/8-18	15/16	11/16	2	1/4	22	1/8	1/4	3/4	5/8	11,874
BUH-0755	3/4-10	1-1/8	3/4	1	5/16	20	1/8	1/4	7/8	3/4	14,862
BUH-0755 X 2.5	3/4-10	1-1/8	3/4	2-1/2	5/16	20	1/8	1/4	7/8	3/4	14,862
BUH-0750	3/4-16	1-1/8	3/4	1	5/16	20	1/8	1/4	7/8	3/4	13,565
BUH-0750 X 2.5	3/4-16	1-1/8	3/4	2-1/2	5/16	20	1/8	1/4	7/8	3/4	13,565
BUH-1108 X 2	1"-8	1-1/2	1	2	3/8	20	1/8	1/4	1-1/8	1	28,158
BUH-1108 X 4	1"-8	1-1/2	1	4	3/8	20	1/8	1/4	1-1/8	1	28,158
BUH-1114 X 2	1"-14	1-1/2	1	2	3/8	20	1/8	1/4	1-1/8	1	26,234
BUH-1114 X 4	1"-14	1-1/2	1	4	3/8	20	1/8	1/4	1-1/8	1	26,234

* F1 – Stand off with 3/8" height pad; F2 – Stand off with 1/2" height pad.

** Select any fixed gripper or rest pad with the proper diameter and tapped hole.

METRIC

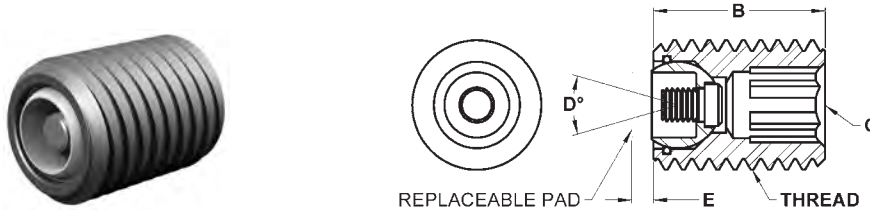
Part #	Thread	Hex	B Head Height	C Thread Length	D Int. Hex	E Degree Swivel	F* Stand Off 1	F* Stand Off 2	Ball Dia.	Replaceable Pad Dia.**	Load Rating Lbs.
MBUH-10015	M10X1.5	17	13	15	3	20	4	6	13	10	4,194
MBUH-10030	M10X1.5	17	13	30	3	20	4	6	13	10	4,194
MBUH-10050	M10X1.5	17	13	50	3	20	4	6	13	10	4,194
MBUH-12020	M12X1.75	19	15	20	5	20	4	6	15	12	6,627
MBUH-12040	M12X1.75	19	15	40	5	20	4	6	15	12	6,627
MBUH-12060	M12X1.75	19	15	60	5	20	4	6	15	12	6,627
MBUH-16025	M16X2.0	24	19	25	6	20	4	6	20	16	11,193
MBUH-16050	M16X2.0	24	19	50	6	20	4	6	20	16	11,193
MBUH-16080	M16X2.0	24	19	80	6	20	4	6	20	16	11,193
MBUH-20030	M20X2.5	30	20	30	8	20	4	6	23	20	19,136
MBUH-20060	M20X2.5	30	20	60	8	20	4	6	23	20	19,136
MBUH-20100	M20X2.5	30	20	100	8	20	4	6	23	20	19,136
MBUH-24040	M24X3.0	36	26	40	10	20	4	6	28	25	27,239
MBUH-24100	M24X3.0	36	26	100	10	20	4	6	28	25	27,239

* F1 – Stand off with 10mm height pad; F2 – Stand off with 12mm height pad.

** Select any fixed gripper or rest pad with the proper diameter and tapped hole.

SWIVOTS® - REPLACEABLE SWIVEL PAD

Threaded Body | Inch & Metric



The replaceable pad swivels to allow for self-alignment on uneven surfaces. The replaceable pad fits in a hardened (Rc 58/60) 440c stainless ball cup and is held in place with a lock screw. The pad can be replaced when worn or a different style pad is required. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The parts below are for the Swivot assembly only and do not include a pad. Pads must be ordered separately. See page 58 for diagram of components.

INCH

Part #	Thread	B Length	C Int. Hex	D Degree Swivel	E* Stand Off 1	E* Stand Off 2	Ball Dia.	Replaceable Pad Dia.**	Load Rating Lbs.
TBU-0755	3/4-10	1	3/8	20	1/8	1/4	1/2	3/8	8,150
TBU-0755 X 2	3/4-10	2	3/8	20	1/8	1/4	1/2	3/8	8,150
TBU-0755 X 3	3/4-10	3	3/8	20	1/8	1/4	1/2	3/8	8,150
TBU-0750	3/4-16	1	3/8	20	1/8	1/4	1/2	3/8	8,150
TBU-0750 X 2	3/4-16	2	3/8	20	1/8	1/4	1/2	3/8	8,150
TBU-0750 X 3	3/4-16	3	3/8	20	1/8	1/4	1/2	3/8	8,150
TBU-1108 X 2	1"-8	2	3/8	24	1/8	1/4	5/8	1/2	14,757
TBU-1108 X 3	1"-8	3	3/8	24	1/8	1/4	5/8	1/2	14,757
TBU-1114 X 2	1"-14	2	3/8	34	1/8	1/4	3/4	5/8	17,210
TBU-1114 X 3	1"-14	3	3/8	34	1/8	1/4	3/4	5/8	17,210

* E1 – Stand off with 3/8" height pad; E2 – Stand off with 1/2" height pad.

** Select any fixed gripper or rest pad with the proper diameter and tapped hole.

METRIC

Part #	Thread	B Length	C Int. Hex	D Degree Swivel	E* Stand Off 1	E* Stand Off 2	Ball Dia.	Replaceable Pad Dia.**	Load Rating Lbs.
MTBU-20030	M20X2.5	30	10	20	4	6	13	10	8,379
MTBU-20050	M20X2.5	50	10	20	4	6	13	10	8,379
MTBU-20070	M20X2.5	70	10	20	4	6	13	10	8,379
MTBU-24040	M24X3.0	40	10	20	4	6	15	12	12,233
MTBU-24080	M24X3.0	80	10	20	4	6	15	12	12,233

*E1 – Stand off with 10mm height pad; E2 – Stand off with 12mm height pad.

** Select any fixed gripper or rest pad with the proper diameter and tapped hole.

THRUST SCREW ASSEMBLIES

Replaceable Ball Thrust Screw Assemblies

These Replaceable Ball Thrust Screw Assemblies are found on the following pages.

REPLACEABLE BALLS

Sof-Top Cone
Urethane Surface
Stainless



Flat Cone
Delrin



Flat Cone
Stainless



**Abrasive
Diamond Cone**
Stainless



Serrated
Tool Steel



Round Ball
Stainless



Round Ball
Delrin



VITON O-RING



HOUSINGS

Tightening Torque Calculator

To calculate the approximate tightening torque (in/lb) required to achieve a required force, multiply the force by the appropriate factor listed below. Assumes no lubrication threaded into steel. Use as a guideline only.

Note: This rating is for the ball, not the gripper points or cone surface.

INCH

Thread	Factor	Thread	Factor
#10-24	0.036	1/2-13	0.093
#10-32	0.035	1/2-20	0.091
1/4-20	0.047	5/8-11	0.116
1/4-28	0.046	5/8-18	0.113
5/16-18	0.059	3/4-10	0.138
5/16-24	0.058	3/4-16	0.135
3/8-16	0.070	1-8	0.183
3/8-24	0.068	1-14	0.180

METRIC

Thread	Factor	Thread	Factor
M6x1.00	0.044	M16x2.00	0.116
M8x1.25	0.058	M20x2.50	0.144
M10x1.50	0.073	M24x3.00	0.173
M12x1.75	0.087		



Threaded Body Design

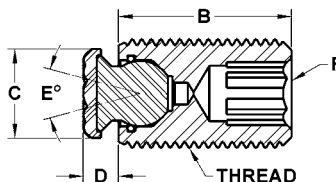
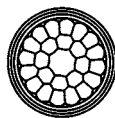


Socket Head Design

- These Replaceable Ball Thrust Screw Assemblies are a modular component system that allows the ball to swivel, tilt, pivot, grip, hold, position or secure work pieces.
- The different housing styles allows for a variety of mounting options.
- Unique design prevents the ball from exceeding the specified degree of swivel -preventing the ball from rolling over in the housing.
- The replaceable ball can be changed when it is worn or another style is needed for a job.
- The ball is held in place with a Viton O-ring which allows for smooth movement and keeps out dirt and other contaminants.
- Replacement balls and o-rings can be ordered separately. It is recommended the o-ring be replaced when the ball is replaced.

THRUST SCREW ASSEMBLIES

Threaded Body | Stainless Ball | Inch Sof-Top Urethane Surface



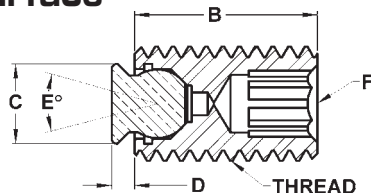
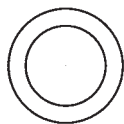
These thrust screw assemblies allow straight line static load thrust without transmitting torsional or radial force on to the contact area. The free floating ball design allows the thrust screw to continue to rotate while the ball remains stationary against the contact surface. Ideal for irregular shaped or contoured applications. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The replaceable ball is held in place with a viton O-ring which keeps contaminants out and allows the ball to swivel. The urethane surface is permanently bonded to a 300 series stainless steel ball. The non-marking, non-staining urethane provides excellent protection against damage on delicate work surfaces. The "bubbled" texture of the urethane top offers firm holding and allows air to escape so no suction is created between the contact surface and the top of the rest pad as it is compressed. Because the top is made of urethane it offers superior abrasion and wear resistance. They are available in three durometers to meet a wide variety of application needs. Replacement balls and O-rings can be ordered separately. See page 62 for diagram of components. Visit www.fairlaneproducts.com for compression load ratings. To order part, add desired durometer (xx) to the part number. Sample TST-0370-FC-35UR.

INCH

Part #	Thread	B Thread Length	C Contact Dia.	D Stand Off	E Degree Swivel	F Int. Hex	Ball Dia.	Urethane Thickness	xx = Durometer
TST-0370-FC-xxUR	3/8-16	1/2	.315	.143	28	3/16	3/16	.08	35 / 60 / 80
TST-0375 X .75-FC-xxUR	3/8-16	3/4	.315	.143	28	3/16	3/16	.08	35 / 60 / 80
TST-0375-FC-xxUR	3/8-16	1	.315	.143	28	3/16	3/16	.08	35 / 60 / 80
TST-0375 X 1.5-FC-xxUR	3/8-16	1-1/2	.315	.143	28	3/16	3/16	.08	35 / 60 / 80
TST-0375 X 2-FC-xxUR	3/8-16	2	.315	.143	28	3/16	3/16	.08	35 / 60 / 80
TST-0375 X 3-FC-xxUR	3/8-16	3	.315	.143	28	3/16	3/16	.08	35 / 60 / 80
TST-0230-FC-xxUR	3/8-24	1/2	.315	.143	28	3/16	3/16	.08	35 / 60 / 80
TST-0230 X .75-FC-xxUR	3/8-24	3/4	.315	.143	28	3/16	3/16	.08	35 / 60 / 80
TST-0231-FC-xxUR	3/8-24	1	.315	.143	28	3/16	3/16	.08	35 / 60 / 80
TST-0231 X 1.5-FC-xxUR	3/8-24	1-1/2	.315	.143	28	3/16	3/16	.08	35 / 60 / 80
TST-0231 X 2-FC-xxUR	3/8-24	2	.315	.143	28	3/16	3/16	.08	35 / 60 / 80
TST-0231 X 3-FC-xxUR	3/8-24	3	.315	.143	28	3/16	3/16	.08	35 / 60 / 80
TST-0513-FC-xxUR	1/2-13	3/4	.394	.174	28	1/4	9/32	.08	35 / 60 / 80
TST-0510-FC-xxUR	1/2-13	1	.394	.174	28	1/4	9/32	.08	35 / 60 / 80
TST-0510 X 1.5-FC-xxUR	1/2-13	1-1/2	.394	.174	28	1/4	9/32	.08	35 / 60 / 80
TST-0510 X 2-FC-xxUR	1/2-13	2	.394	.174	28	1/4	9/32	.08	35 / 60 / 80
TST-0510 X 3-FC-xxUR	1/2-13	3	.394	.174	28	1/4	9/32	.08	35 / 60 / 80
TST-0503-FC-xxUR	1/2-20	3/4	.394	.174	28	1/4	9/32	.08	35 / 60 / 80
TST-0500-FC-xxUR	1/2-20	1	.394	.174	28	1/4	9/32	.08	35 / 60 / 80
TST-0500 X 1.5-FC-xxUR	1/2-20	1-1/2	.394	.174	28	1/4	9/32	.08	35 / 60 / 80
TST-0500 X 2-FC-xxUR	1/2-20	2	.394	.174	28	1/4	9/32	.08	35 / 60 / 80
TST-0500 X 3-FC-xxUR	1/2-20	3	.394	.174	28	1/4	9/32	.08	35 / 60 / 80
TST-0625-FC-xxUR	5/8-11	1	.512	.205	28	5/16	3/8	.08	35 / 60 / 80
TST-0625 X 2-FC-xxUR	5/8-11	2	.512	.205	28	5/16	3/8	.08	35 / 60 / 80
TST-0625 X 3-FC-xxUR	5/8-11	3	.512	.205	28	5/16	3/8	.08	35 / 60 / 80
TST-0620-FC-xxUR	5/8-18	1	.512	.205	28	5/16	3/8	.08	35 / 60 / 80
TST-0620 X 2-FC-xxUR	5/8-18	2	.512	.205	28	5/16	3/8	.08	35 / 60 / 80
TST-0620 X 3-FC-xxUR	5/8-18	3	.512	.205	28	5/16	3/8	.08	35 / 60 / 80
TST-0755-FC-xxUR	3/4-10	1	.630	.205	28	3/8	1/2	.08	35 / 60 / 80
TST-0755 X 2-FC-xxUR	3/4-10	2	.630	.205	28	3/8	1/2	.08	35 / 60 / 80
TST-0755 X 3-FC-xxUR	3/4-10	3	.630	.205	28	3/8	1/2	.08	35 / 60 / 80
TST-0750-FC-xxUR	3/4-16	1	.630	.205	28	3/8	1/2	.08	35 / 60 / 80
TST-0750 X 2-FC-xxUR	3/4-16	2	.630	.205	28	3/8	1/2	.08	35 / 60 / 80
TST-0750 X 3-FC-xxUR	3/4-16	3	.630	.205	28	3/8	1/2	.08	35 / 60 / 80
TST-1108-FC-xxUR	1"-8	1	.827	.236	32	3/8	5/8	.08	35 / 60 / 80
TST-1108 X 2-FC-xxUR	1"-8	2	.827	.236	32	3/8	5/8	.08	35 / 60 / 80
TST-1108 X 3-FC-xxUR	1"-8	3	.827	.236	32	3/8	5/8	.08	35 / 60 / 80
TST-1114-FC-xxUR	1"-14	1	.906	.236	32	3/8	3/4	.08	35 / 60 / 80
TST-1114 X 2-FC-xxUR	1"-14	2	.906	.236	32	3/8	3/4	.08	35 / 60 / 80
TST-1114 X 3-FC-xxUR	1"-14	3	.906	.236	32	3/8	3/4	.08	35 / 60 / 80

THRUST SCREW ASSEMBLIES

**Threaded Body | Flat Cone | Inch
Delrin | Stainless | Diamond Surface**



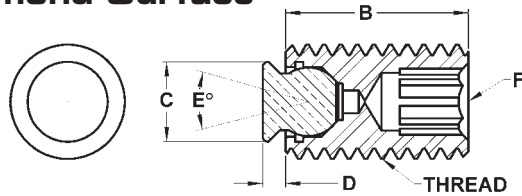
These thrust screw assemblies allow straight line static load thrust without transmitting torsional or radial force on to the contact area. The free floating ball design allows the thrust screw to continue to rotate while the ball remains stationary against the contact surface. Ideal for irregular shaped or contoured applications. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The replaceable ball is held in place with a viton O-ring which keeps contaminants out and allows the ball to swivel. The delrin ball is made from non-marring white delrin. The stainless ball is made from 300 series stainless steel. The diamond style has a diamond abrasive surface that is permanently fused to a 300 series stainless steel pad. The surface texture is comparable to a 100 grit abrasive. They are ideal for holding smooth or slippery applications with a minimum of clamping pressure. Individual diamond particles transfer holding pressure to a very small and well distributed area, providing superior holding with minimal surface marking. The diamond surface provides unparalleled wear resistance. Replacement balls and O-rings can be ordered separately. See page 62 for diagram of components.

INCH

Delrin Part #	Stainless Part #	Diamond Part #	Thread	B Thread Length	C Contact Dia.	D Stand Off	E Degree Swivel	F Int. Hex	Ball Dia.	Load Rating Lbs.*
TST-0250-DC	TST-0250-FC	TST-0250-FC-DS	1/4-20	1/2	9/64	1/16	30	1/8	1/8	—
TST-0251-DC	TST-0251-FC	TST-0251-FC-DS	1/4-20	3/4	9/64	1/16	30	1/8	1/8	—
TST-0251 X 1-DC	TST-0251 X 1-FC	TST-0251 X 1-FC-DS	1/4-20	1	9/64	1/16	30	1/8	1/8	—
TST-0280-DC	TST-0280-FC	TST-0280-FC-DS	1/4-28	1/2	9/64	1/16	30	1/8	1/8	—
TST-0281-DC	TST-0281-FC	TST-0281-FC-DS	1/4-28	3/4	9/64	1/16	30	1/8	1/8	—
TST-0281 X 1-DC	TST-0281 X 1-FC	TST-0281 X 1-FC-DS	1/4-28	1	9/64	1/16	30	1/8	1/8	—
TST-0310-DC	TST-0310-FC	TST-0310-FC-DS	5/16-18	1/2	13/64	1/16	30	5/32	5/32	—
TST-0312-DC	TST-0312-FC	TST-0312-FC-DS	5/16-18	3/4	13/64	1/16	30	5/32	5/32	—
TST-0312 X 1-DC	TST-0312 X 1-FC	TST-0312 X 1-FC-DS	5/16-18	1	13/64	1/16	30	5/32	5/32	—
TST-0312 X 1.5-DC	TST-0312 X 1.5-FC	TST-0312 X 1.5-FC-DS	5/16-18	1-1/2	13/64	1/16	30	5/32	5/32	—
TST-0320-DC	TST-0320-FC	TST-0320-FC-DS	5/16-24	1/2	13/64	1/16	30	5/32	5/32	—
TST-0321-DC	TST-0321-FC	TST-0321-FC-DS	5/16-24	3/4	13/64	1/16	30	5/32	5/32	—
TST-0321 X 1-DC	TST-0321 X 1-FC	TST-0321 X 1-FC-DS	5/16-24	1	13/64	1/16	30	5/32	5/32	—
TST-0321 X 1.5-DC	TST-0321 X 1.5-FC	TST-0321 X 1.5-FC-DS	5/16-24	1-1/2	13/64	1/16	30	5/32	5/32	—
TST-0370-DC	TST-0370-FC	TST-0370-FC-DS	3/8-16	1/2	1/4	3/32	28	3/16	3/16	1,763
TST-0370 X .75-DC	TST-0370 X .75-FC	TST-0370 X .75-FC-DS	3/8-16	3/4	1/4	3/32	28	3/16	3/16	1,763
TST-0375-DC	TST-0375-FC	TST-0375-FC-DS	3/8-16	1	1/4	3/32	28	3/16	3/16	1,763
TST-0375 X 1.5-DC	TST-0375 X 1.5-FC	TST-0375 X 1.5-FC-DS	3/8-16	1-1/2	1/4	3/32	28	3/16	3/16	1,763
TST-0375 X 2-DC	TST-0375 X 2-FC	TST-0375 X 2-FC-DS	3/8-16	2	1/4	3/32	28	3/16	3/16	1,763
TST-0375 X 3-DC	TST-0375 X 3-FC	TST-0375 X 3-FC-DS	3/8-16	3	1/4	3/32	28	3/16	3/16	1,763
TST-0230-DC	TST-0230-FC	TST-0230-FC-DS	3/8-24	1/2	1/4	3/32	28	3/16	3/16	1,763
TST-0230 X .75-DC	TST-0230 X .75-FC	TST-0230 X .75-FC-DS	3/8-24	3/4	1/4	3/32	28	3/16	3/16	1,763
TST-0231-DC	TST-0231-FC	TST-0231-FC-DS	3/8-24	1	1/4	3/32	28	3/16	3/16	1,763
TST-0231 X 1.5-DC	TST-0231 X 1.5-FC	TST-0231 X 1.5-FC-DS	3/8-24	1-1/2	1/4	3/32	28	3/16	3/16	1,763
TST-0231 X 2-DC	TST-0231 X 2-FC	TST-0231 X 2-FC-DS	3/8-24	2	1/4	3/32	28	3/16	3/16	1,763
TST-0231 X 3-DC	TST-0231 X 3-FC	TST-0231 X 3-FC-DS	3/8-24	3	1/4	3/32	28	3/16	3/16	1,763
TST-0513-DC	TST-0513-FC	TST-0513-FC-DS	1/2-13	3/4	11/32	3/32	28	1/4	9/32	4,527
TST-0510-DC	TST-0510-FC	TST-0510-FC-DS	1/2-13	1	11/32	3/32	28	1/4	9/32	4,527
TST-0510 X 1.5-DC	TST-0510 X 1.5-FC	TST-0510 X 1.5-FC-DS	1/2-13	1-1/2	11/32	3/32	28	1/4	9/32	4,527
TST-0510 X 2-DC	TST-0510 X 2-FC	TST-0510 X 2-FC-DS	1/2-13	2	11/32	3/32	28	1/4	9/32	4,527
TST-0510 X 3-DC	TST-0510 X 3-FC	TST-0510 X 3-FC-DS	1/2-13	3	11/32	3/32	28	1/4	9/32	4,527
TST-0503-DC	TST-0503-FC	TST-0503-FC-DS	1/2-20	3/4	11/32	3/32	28	1/4	9/32	4,527
TST-0500-DC	TST-0500-FC	TST-0500-FC-DS	1/2-20	1	11/32	3/32	28	1/4	9/32	4,527
TST-0500 X 1.5-DC	TST-0500 X 1.5-FC	TST-0500 X 1.5-FC-DS	1/2-20	1-1/2	11/32	3/32	28	1/4	9/32	4,527
TST-0500 X 2-DC	TST-0500 X 2-FC	TST-0500 X 2-FC-DS	1/2-20	2	11/32	3/32	28	1/4	9/32	4,527
TST-0500 X 3-DC	TST-0500 X 3-FC	TST-0500 X 3-FC-DS	1/2-20	3	11/32	3/32	28	1/4	9/32	4,527
TST-0625-DC	TST-0625-FC	TST-0625-FC-DS	5/8-11	1	7/16	1/8	28	5/16	3/8	6,131
TST-0625 X 2-DC	TST-0625 X 2-FC	TST-0625 X 2-FC-DS	5/8-11	2	7/16	1/8	28	5/16	3/8	6,131
TST-0625 X 3-DC	TST-0625 X 3-FC	TST-0625 X 3-FC-DS	5/8-11	3	7/16	1/8	28	5/16	3/8	6,131
TST-0620-DC	TST-0620-FC	TST-0620-FC-DS	5/8-18	1	7/16	1/8	28	5/16	3/8	6,131
TST-0620 X 2-DC	TST-0620 X 2-FC	TST-0620 X 2-FC-DS	5/8-18	2	7/16	1/8	28	5/16	3/8	6,131
TST-0620 X 3-DC	TST-0620 X 3-FC	TST-0620 X 3-FC-DS	5/8-18	3	7/16	1/8	28	5/16	3/8	6,131

THRUST SCREW ASSEMBLIES

Threaded Body | Flat Cone | Inch (continued)
Delrin | Stainless | Diamond Surface



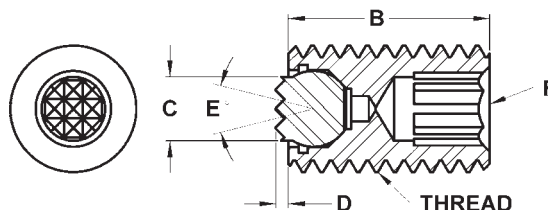
INCH (CONTINUED)

Delrin Part #	Stainless Part #	Diamond Part #	Thread	B Thread Length	C Contact Dia.	D Stand Off	E Degree Swivel	F Int. Hex	Ball Dia.	Load Rating Lbs.*
TST-0755-DC	TST-0755-FC	TST-0755-FC-DS	3/4-10	1	33/64	1/8	28	3/8	1/2	8,150
TST-0755 X 2-DC	TST-0755 X 2-FC	TST-0755 X 2-FC-DS	3/4-10	2	33/64	1/8	28	3/8	1/2	8,150
TST-0755 X 3-DC	TST-0755 X 3-FC	TST-0755 X 3-FC-DS	3/4-10	3	33/64	1/8	28	3/8	1/2	8,150
TST-0750-DC	TST-0750-FC	TST-0750-FC-DS	3/4-16	1	33/64	1/8	28	3/8	1/2	8,150
TST-0750 X 2-DC	TST-0750 X 2-FC	TST-0750 X 2-FC-DS	3/4-16	2	33/64	1/8	28	3/8	1/2	8,150
TST-0750 X 3-DC	TST-0750 X 3-FC	TST-0750 X 3-FC-DS	3/4-16	3	33/64	1/8	28	3/8	1/2	8,150
TST-1108-DC	TST-1108-FC	TST-1108-FC-DS	1"-8	1	11/16	5/32	32	3/8	5/8	14,757
TST-1108 X 2-DC	TST-1108 X 2-FC	TST-1108 X 2-FC-DS	1"-8	2	11/16	5/32	32	3/8	5/8	14,757
TST-1108 X 3-DC	TST-1108 X 3-FC	TST-1108 X 3-FC-DS	1"-8	3	11/16	5/32	32	3/8	5/8	14,757
TST-1114-DC	TST-1114-FC	TST-1114-FC-DS	1"-14	1	49/64	5/32	32	3/8	3/4	17,210
TST-1114 X 2-DC	TST-1114 X 2-FC	TST-1114 X 2-FC-DS	1"-14	2	49/64	5/32	32	3/8	3/4	17,210
TST-1114 X 3-DC	TST-1114 X 3-FC	TST-1114 X 3-FC-DS	1"-14	3	49/64	5/32	32	3/8	3/4	17,210

*Load ratings do not apply to the delrin ball styles.

THRUST SCREW ASSEMBLIES

Threaded Body | Serrated | Inch Tool Steel



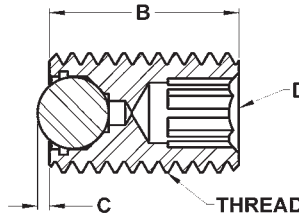
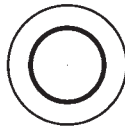
These thrust screw assemblies allow straight line static load thrust without transmitting torsional or radial force on to the contact area. The free floating ball design allows the thrust screw to continue to rotate while the ball remains stationary against the contact surface. Ideal for irregular shaped or contoured applications. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The replaceable ball is held in place with a viton O-ring which keeps contaminants out and allows the ball to swivel. The ball is made from M-2 high speed steel and heat treated to Rc 60/62. Replacement balls and O-rings can be ordered separately. See page 4 for tooth pattern specifications. See page 62 for diagram of components.

INCH

Part #	Thread	B Thread Length	C Contact Dia.	D Stand Off	E Degree Swivel	F Int. Hex	Ball Dia.	Tooth Pattern	Load Rating Lbs.
TST-0370-S	3/8-16	1/2	5/32	1/16	28	3/16	3/16	SF	1,763
TST-0370 X .75-S	3/8-16	3/4	5/32	1/16	28	3/16	3/16	SF	1,763
TST-0375-S	3/8-16	1	5/32	1/16	28	3/16	3/16	SF	1,763
TST-0375 X 1.5-S	3/8-16	1-1/2	5/32	1/16	28	3/16	3/16	SF	1,763
TST-0375 X 2-S	3/8-16	2	5/32	1/16	28	3/16	3/16	SF	1,763
TST-0375 X 3-S	3/8-16	3	5/32	1/16	28	3/16	3/16	SF	1,763
TST-0230-S	3/8-24	1/2	5/32	1/16	28	3/16	3/16	SF	1,763
TST-0230 X .75-S	3/8-24	3/4	5/32	1/16	28	3/16	3/16	SF	1,763
TST-0231-S	3/8-24	1	5/32	1/16	28	3/16	3/16	SF	1,763
TST-0231 X 1.5-S	3/8-24	1-1/2	5/32	1/16	28	3/16	3/16	SF	1,763
TST-0231 X 2-S	3/8-24	2	5/32	1/16	28	3/16	3/16	SF	1,763
TST-0231 X 3-S	3/8-24	3	5/32	1/16	28	3/16	3/16	SF	1,763
TST-0513-S	1/2-13	3/4	1/4	1/16	28	1/4	9/32	SF	4,527
TST-0510-S	1/2-13	1	1/4	1/16	28	1/4	9/32	SF	4,527
TST-0510 X 1.5-S	1/2-13	1-1/2	1/4	1/16	28	1/4	9/32	SF	4,527
TST-0510 X 2-S	1/2-13	2	1/4	1/16	28	1/4	9/32	SF	4,527
TST-0510 X 3-S	1/2-13	3	1/4	1/16	28	1/4	9/32	SF	4,527
TST-0503-S	1/2-20	3/4	1/4	1/16	28	1/4	9/32	SF	4,527
TST-0500-S	1/2-20	1	1/4	1/16	28	1/4	9/32	SF	4,527
TST-0500 X 1.5-S	1/2-20	1-1/2	1/4	1/16	28	1/4	9/32	SF	4,527
TST-0500 X 2-S	1/2-20	2	1/4	1/16	28	1/4	9/32	SF	4,527
TST-0500 X 3-S	1/2-20	3	1/4	1/16	28	1/4	9/32	SF	4,527
TST-0625-S	5/8-11	1	5/16	1/16	28	5/16	3/8	EF	6,131
TST-0625 X 2-S	5/8-11	2	5/16	1/16	28	5/16	3/8	EF	6,131
TST-0625 X 3-S	5/8-11	3	5/16	1/16	28	5/16	3/8	EF	6,131
TST-0620-S	5/8-18	1	5/16	1/16	28	5/16	3/8	EF	6,131
TST-0620 X 2-S	5/8-18	2	5/16	1/16	28	5/16	3/8	EF	6,131
TST-0620 X 3-S	5/8-18	3	5/16	1/16	28	5/16	3/8	EF	6,131
TST-0755-S	3/4-10	1	3/8	1/8	40	3/8	1/2	EF	8,150
TST-0755 X 2-S	3/4-10	2	3/8	1/8	40	3/8	1/2	EF	8,150
TST-0755 X 3-S	3/4-10	3	3/8	1/8	40	3/8	1/2	EF	8,150
TST-0750-S	3/4-16	1	3/8	1/8	40	3/8	1/2	EF	8,150
TST-0750 X 2-S	3/4-16	2	3/8	1/8	40	3/8	1/2	EF	8,150
TST-0750 X 3-S	3/4-16	3	3/8	1/8	40	3/8	1/2	EF	8,150
TST-1108-S	1"-8	1	1/2	1/8	40	3/8	5/8	Fine	14,757
TST-1108 X 2-S	1"-8	2	1/2	1/8	40	3/8	5/8	Fine	14,757
TST-1108 X 3-S	1"-8	3	1/2	1/8	40	3/8	5/8	Fine	14,757
TST-1114-S	1"-14	1	5/8	1/8	34	3/8	3/4	Fine	17,210
TST-1114 X 2-S	1"-14	2	5/8	1/8	34	3/8	3/4	Fine	17,210
TST-1114 X 3-S	1"-14	3	5/8	1/8	34	3/8	3/4	Fine	17,210

THRUST SCREW ASSEMBLIES

Threaded Body | Round Ball | Inch Delrin | Stainless



These thrust screw assemblies allow straight line static load thrust without transmitting torsional or radial force on to the contact area. The free floating ball design allows the thrust screw to continue to rotate while the ball remains stationary against the contact surface. Ideal for irregular shaped or contoured applications. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The replaceable ball is held in place with a viton O-ring which keeps contaminants out and allows the ball to swivel. The delrin ball is made from non-marring white delrin. The stainless ball is made from 440c stainless steel and heat treated to Rc 58/62. Replacement balls and O-rings can be ordered separately. See page 62 for diagram of components.

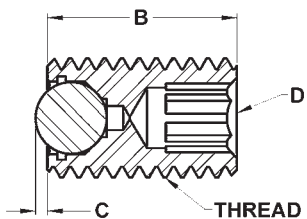
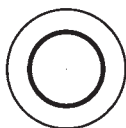
INCH

Delrin Part #	Stainless Part #	Thread	B Thread Length	C Stand Off	Ball Dia.	D Int. Hex	Load Rating Lbs.*
TST-0310-DB	TST-0310-SB	5/16-18	1/2	.026	5/32	5/32	—
TST-0312-DB	TST-0312-SB	5/16-18	3/4	.026	5/32	5/32	—
TST-0312 X 1-DB	TST-0312 X 1-SB	5/16-18	1	.026	5/32	5/32	—
TST-0312 X 1.5-DB	TST-0312 X 1.5-SB	5/16-18	1-1/2	.026	5/32	5/32	—
TST-0320-DB	TST-0320-SB	5/16-24	1/2	.026	5/32	5/32	—
TST-0321-DB	TST-0321-SB	5/16-24	3/4	.026	5/32	5/32	—
TST-0321 X 1-DB	TST-0321 X 1-SB	5/16-24	1	.026	5/32	5/32	—
TST-0321 X 1.5-DB	TST-0321 X 1.5-SB	5/16-24	1-1/2	.026	5/32	5/32	—
TST-0370-DB	TST-0370-SB	3/8-16	1/2	.024	3/16	3/16	1,763
TST-0370 X .75-DB	TST-0370 X .75-SB	3/8-16	3/4	.024	3/16	3/16	1,763
TST-0375-DB	TST-0375-SB	3/8-16	1	.024	3/16	3/16	1,763
TST-0375 X 1.5-DB	TST-0375 X 1.5-SB	3/8-16	1-1/2	.024	3/16	3/16	1,763
TST-0375 X 2-DB	TST-0375 X 2-SB	3/8-16	2	.024	3/16	3/16	1,763
TST-0375 X 3-DB	TST-0375 X 3-SB	3/8-16	3	.024	3/16	3/16	1,763
TST-0230-DB	TST-0230-SB	3/8-24	1/2	.024	3/16	3/16	1,763
TST-0230 X .75-DB	TST-0230 X .75-SB	3/8-24	3/4	.024	3/16	3/16	1,763
TST-0231-DB	TST-0231-SB	3/8-24	1	.024	3/16	3/16	1,763
TST-0231 X 1.5-DB	TST-0231 X 1.5-SB	3/8-24	1-1/2	.024	3/16	3/16	1,763
TST-0231 X 2-DB	TST-0231 X 2-SB	3/8-24	2	.024	3/16	3/16	1,763
TST-0231 X 3-DB	TST-0231 X 3-SB	3/8-24	3	.024	3/16	3/16	1,763
TST-0513-DB	TST-0513-SB	1/2-13	3/4	.063	9/32	1/4	4,527
TST-0510-DB	TST-0510-SB	1/2-13	1	.063	9/32	1/4	4,527
TST-0510 X 1.5-DB	TST-0510 X 1.5-SB	1/2-13	1-1/2	.063	9/32	1/4	4,527
TST-0510 X 2-DB	TST-0510 X 2-SB	1/2-13	2	.063	9/32	1/4	4,527
TST-0510 X 3-DB	TST-0510 X 3-SB	1/2-13	3	.063	9/32	1/4	4,527
TST-0503-DB	TST-0503-SB	1/2-20	3/4	.063	9/32	1/4	4,527
TST-0500-DB	TST-0500-SB	1/2-20	1	.063	9/32	1/4	4,527
TST-0500 X 1.5-DB	TST-0500 X 1.5-SB	1/2-20	1-1/2	.063	9/32	1/4	4,527
TST-0500 X 2-DB	TST-0500 X 2-SB	1/2-20	2	.063	9/32	1/4	4,527
TST-0500 X 3-DB	TST-0500 X 3-SB	1/2-20	3	.063	9/32	1/4	4,527
TST-0625-DB	TST-0625-SB	5/8-11	1	.063	3/8	5/16	6,131
TST-0625 X 2-DB	TST-0625 X 2-SB	5/8-11	2	.063	3/8	5/16	6,131
TST-0625 X 3-DB	TST-0625 X 3-SB	5/8-11	3	.063	3/8	5/16	6,131
TST-0620-DB	TST-0620-SB	5/8-18	1	.063	3/8	5/16	6,131
TST-0620 X 2-DB	TST-0620 X 2-SB	5/8-18	2	.063	3/8	5/16	6,131
TST-0620 X 3-DB	TST-0620 X 3-SB	5/8-18	3	.063	3/8	5/16	6,131
TST-0755-DB	TST-0755-SB	3/4-10	1	.107	1/2	3/8	8,150
TST-0755 X 2-DB	TST-0755 X 2-SB	3/4-10	2	.107	1/2	3/8	8,150
TST-0755 X 3-DB	TST-0755 X 3-SB	3/4-10	3	.107	1/2	3/8	8,150
TST-0750-DB	TST-0750-SB	3/4-16	1	.107	1/2	3/8	8,150
TST-0750 X 2-DB	TST-0750 X 2-SB	3/4-16	2	.107	1/2	3/8	8,150
TST-0750 X 3-DB	TST-0750 X 3-SB	3/4-16	3	.107	1/2	3/8	8,150

* Load ratings do not apply to the delrin ball styles.

THRUST SCREW ASSEMBLIES

Threaded Body | Round Ball | Inch (continued) Delrin | Stainless



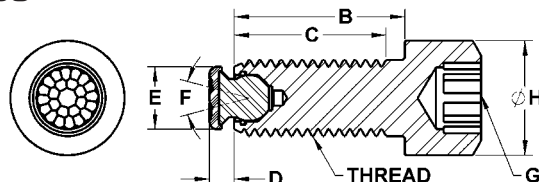
INCH (CONTINUED)

Delrin Part #	Stainless Part #	Thread	B Thread Length	C Stand Off	Ball Dia.	D Int. Hex	Load Rating Lbs.*
TST-1108-DB	TST-1108-SB	1"-8	1	.175	5/8	3/8	14,757
TST-1108 X 2-DB	TST-1108 X 2-SB	1"-8	2	.175	5/8	3/8	14,757
TST-1108 X 3-DB	TST-1108 X 3-SB	1"-8	3	.175	5/8	3/8	14,757
TST-1114-DB	TST-1114-SB	1"-14	1	.208	3/4	3/8	17,210
TST-1114 X 2-DB	TST-1114 X 2-SB	1"-14	2	.208	3/4	3/8	17,210
TST-1114 X 3-DB	TST-1114 X 3-SB	1"-14	3	.208	3/4	3/8	17,210

*Load ratings do not apply to the delrin ball styles.

THRUST SCREW ASSEMBLIES

Socket Head | Stainless Ball | Inch Sof-Top Urethane Surface



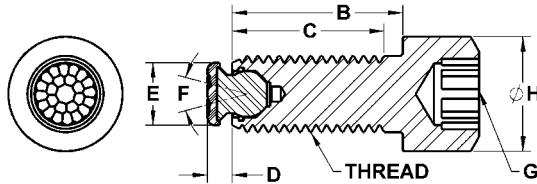
These thrust screw assemblies allow straight line static load thrust without transmitting torsional or radial force on to the contact area. The free floating ball design allows the thrust screw to continue to rotate while the ball remains stationary against the contact surface. Ideal for irregular shaped or contoured applications. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The replaceable ball is held in place with a viton O-ring which keeps contaminants out and allows the ball to swivel. The urethane surface is permanently bonded to a 300 series stainless steel ball. The non-marking, non-staining urethane provides excellent protection against damage on delicate work surfaces. The "bubbled" texture of the urethane top offers firm holding and allows air to escape so no suction is created between the contact surface and the top of the rest pad as it is compressed. Because the top is made of urethane it offers superior abrasion and wear resistance. They are available in three durometers to meet a wide variety of application needs. Replacement balls and O-rings can be ordered separately. See page 62 for diagram of components. Visit www.fairlaneproducts.com for compression load ratings. To order part, add desired durometer (xx) to the part number. Sample TSH-0375-FC-35UR.

INCH

Part #	Thread	B Shank Length	C Thread Length	D Stand Off	E Contact Dia.	F Degree Swivel	G Int. Hex	H Head Dia.	Ball Dia.	Urethane Thickness	xx = Durometer
TSH-0375-FC-xxUR	3/8-16	1	1	.143	.315	28	5/16	9/16	3/16	.08	35 / 60 / 80
TSH-0375 X 1.5-FC-xxUR	3/8-16	1-1/2	1-1/2	.143	.315	28	5/16	9/16	3/16	.08	35 / 60 / 80
TSH-0375 X 2-FC-xxUR	3/8-16	2	1-1/2	.143	.315	28	5/16	9/16	3/16	.08	35 / 60 / 80
TSHF-0375 X 2-FC-xxUR	3/8-16	2	2	.143	.315	28	5/16	9/16	3/16	.08	35 / 60 / 80
TSH-0375 X 2.5-FC-xxUR	3/8-16	2-1/2	1-1/2	.143	.315	28	5/16	9/16	3/16	.08	35 / 60 / 80
TSHF-0375 X 2.5-FC-xxUR	3/8-16	2-1/2	2-1/2	.143	.315	28	5/16	9/16	3/16	.08	35 / 60 / 80
TSH-0231-FC-xxUR	3/8-24	1	1	.143	.315	28	5/16	9/16	3/16	.08	35 / 60 / 80
TSH-0231 X 1.5-FC-xxUR	3/8-24	1-1/2	1-1/2	.143	.315	28	5/16	9/16	3/16	.08	35 / 60 / 80
TSH-0231 X 2-FC-xxUR	3/8-24	2	1-3/8	.143	.315	28	5/16	9/16	3/16	.08	35 / 60 / 80
TSHF-0231 X 2-FC-xxUR	3/8-24	2	2	.143	.315	28	5/16	9/16	3/16	.08	35 / 60 / 80
TSH-0231 X 2.5-FC-xxUR	3/8-24	2-1/2	1-3/8	.143	.315	28	5/16	9/16	3/16	.08	35 / 60 / 80
TSHF-0231 X 2.5-FC-xxUR	3/8-24	2-1/2	2-1/2	.143	.315	28	5/16	9/16	3/16	.08	35 / 60 / 80
TSH-0510 X 1.25-FC-xxUR	1/2-13	1-1/4	1-1/4	.174	.394	28	3/8	3/4	9/32	.08	35 / 60 / 80
TSH-0510 X 2-FC-xxUR	1/2-13	2	2	.174	.394	28	3/8	3/4	9/32	.08	35 / 60 / 80
TSH-0510 X 2.5-FC-xxUR	1/2-13	2-1/2	1-1/2	.174	.394	28	3/8	3/4	9/32	.08	35 / 60 / 80
TSHF-0510 X 2.5-FC-xxUR	1/2-13	2-1/2	2-1/2	.174	.394	28	3/8	3/4	9/32	.08	35 / 60 / 80
TSH-0510 X 3-FC-xxUR	1/2-13	3	1-1/2	.174	.394	28	3/8	3/4	9/32	.08	35 / 60 / 80
TSHF-0510 X 3-FC-xxUR	1/2-13	3	3	.174	.394	28	3/8	3/4	9/32	.08	35 / 60 / 80
TSH-0500 X 1.25-FC-xxUR	1/2-20	1-1/4	1-1/4	.174	.394	28	3/8	3/4	9/32	.08	35 / 60 / 80
TSH-0500 X 1.5-FC-xxUR	1/2-20	1-1/2	1-1/2	.174	.394	28	3/8	3/4	9/32	.08	35 / 60 / 80
TSH-0500 X 2-FC-xxUR	1/2-20	2	2	.174	.394	28	3/8	3/4	9/32	.08	35 / 60 / 80
TSHF-0500 X 2.5-FC-xxUR	1/2-20	2-1/2	2-1/2	.174	.394	28	3/8	3/4	9/32	.08	35 / 60 / 80
TSH-0500 X 3-FC-xxUR	1/2-20	3	1-1/2	.174	.394	28	3/8	3/4	9/32	.08	35 / 60 / 80
TSHF-0500 X 3-FC-xxUR	1/2-20	3	3	.174	.394	28	3/8	3/4	9/32	.08	35 / 60 / 80
TSH-0625-FC-xxUR	5/8-11	1-1/2	1-1/2	.205	.512	28	1/2	15/16	3/8	.08	35 / 60 / 80
TSH-0625 X 2-FC-xxUR	5/8-11	2	2	.205	.512	28	1/2	15/16	3/8	.08	35 / 60 / 80
TSH-0625 X 2.5-FC-xxUR	5/8-11	2-1/2	1-3/4	.205	.512	28	1/2	15/16	3/8	.08	35 / 60 / 80
TSHF-0625 X 2.5-FC-xxUR	5/8-11	2-1/2	2-1/2	.205	.512	28	1/2	15/16	3/8	.08	35 / 60 / 80
TSH-0625 X 3-FC-xxUR	5/8-11	3	1-3/4	.205	.512	28	1/2	15/16	3/8	.08	35 / 60 / 80
TSHF-0625 X 3-FC-xxUR	5/8-11	3	3	.205	.512	28	1/2	15/16	3/8	.08	35 / 60 / 80
TSH-0620-FC-xxUR	5/8-18	1-1/2	1-1/2	.205	.512	28	1/2	15/16	3/8	.08	35 / 60 / 80
TSH-0620 X 2-FC-xxUR	5/8-18	2	2	.205	.512	28	1/2	15/16	3/8	.08	35 / 60 / 80
TSH-0620 X 2.5-FC-xxUR	5/8-18	2-1/2	1-3/4	.205	.512	28	1/2	15/16	3/8	.08	35 / 60 / 80
TSHF-0620 X 2.5-FC-xxUR	5/8-18	2-1/2	2-1/2	.205	.512	28	1/2	15/16	3/8	.08	35 / 60 / 80
TSH-0620 X 3-FC-xxUR	5/8-18	3	1-3/4	.205	.512	28	1/2	15/16	3/8	.08	35 / 60 / 80
TSHF-0620 X 3-FC-xxUR	5/8-18	3	3	.205	.512	28	1/2	15/16	3/8	.08	35 / 60 / 80

THRUST SCREW ASSEMBLIES

Socket Head | Stainless Ball | Inch (continued) Sof-Top Urethane Surface

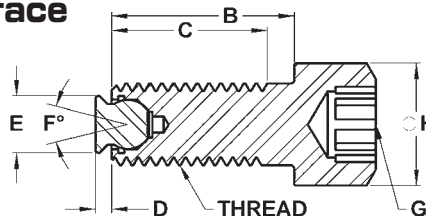
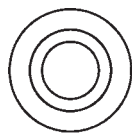


INCH (CONTINUED)

Part #	Thread	B Shank Length	C Thread Length	D Stand Off	E Contact Dia.	F Degree Swivel	G Int. Hex	H Head Dia.	Ball Dia.	Urethane Thickness	xx = Durometer
TSH-0755 X 2-FC-xxUR	3/4-10	2	2	.205	.630	28	5/8	1-1/8	1/2	.08	35 / 60 / 80
TSH-0755 X 2.5-FC-xxUR	3/4-10	2-1/2	2-1/2	.205	.630	28	5/8	1-1/8	1/2	.08	35 / 60 / 80
TSH-0755 X 3-FC-xxUR	3/4-10	3	2	.205	.630	28	5/8	1-1/8	1/2	.08	35 / 60 / 80
TSHF-0755 X 3-FC-xxUR	3/4-10	3	3	.205	.630	28	5/8	1-1/8	1/2	.08	35 / 60 / 80
TSH-0750 X 2-FC-xxUR	3/4-16	2	2	.205	.630	28	5/8	1-1/8	1/2	.08	35 / 60 / 80
TSH-0750 X 2.5-FC-xxUR	3/4-16	2-1/2	2-1/2	.205	.630	28	5/8	1-1/8	1/2	.08	35 / 60 / 80
TSH-0750 X 3-FC-xxUR	3/4-16	3	2	.205	.630	28	5/8	1-1/8	1/2	.08	35 / 60 / 80
TSHF-0750 X 3-FC-xxUR	3/4-16	3	3	.205	.630	28	5/8	1-1/8	1/2	.08	35 / 60 / 80
TSH-1108 X 2-FC-xxUR	1"-8	2	2	.236	.827	32	3/4	1-1/2	5/8	.08	35 / 60 / 80
TSH-1108 X 3-FC-xxUR	1"-8	3	3	.236	.827	32	3/4	1-1/2	5/8	.08	35 / 60 / 80
TSH-1108 X 4-FC-xxUR	1"-8	4	2-1/2	.236	.827	32	3/4	1-1/2	5/8	.08	35 / 60 / 80
TSHF-1108 X 4-FC-xxUR	1"-8	4	4	.236	.827	32	3/4	1-1/2	5/8	.08	35 / 60 / 80
TSH-1114 X 2-FC-xxUR	1"-14	2	2	.236	.906	32	3/4	1-1/2	3/4	.08	35 / 60 / 80
TSH-1114 X 3-FC-xxUR	1"-14	3	3	.236	.906	32	3/4	1-1/2	3/4	.08	35 / 60 / 80
TSH-1114 X 4-FC-xxUR	1"-14	4	2-1/2	.236	.906	32	3/4	1-1/2	3/4	.08	35 / 60 / 80
TSHF-1114 X 4-FC-xxUR	1"-14	4	4	.236	.906	32	3/4	1-1/2	3/4	.08	35 / 60 / 80

THRUST SCREW ASSEMBLIES

Socket Head | Flat Cone | Inch Delrin | Stainless | Diamond Surface



These thrust screw assemblies allow straight line static load thrust without transmitting torsional or radial force on to the contact area. The free floating ball design allows the thrust screw to continue to rotate while the ball remains stationary against the contact surface. Ideal for irregular shaped or contoured applications. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The replaceable ball is held in place with a viton O-ring which keeps contaminants out and allows the ball to swivel. The delrin ball is made from non-marring white delrin. The stainless ball is made from 300 series stainless steel. The diamond style has a diamond abrasive surface that is permanently fused to a 300 series stainless steel pad. The surface texture is comparable to a 100 grit abrasive. They are ideal for holding smooth or slippery applications with a minimum of clamping pressure. Individual diamond particles transfer holding pressure to a very small and well distributed area, providing superior holding with minimal surface marking. The diamond surface provides unparalleled wear resistance. Replacement balls and O-rings can be ordered separately. See page 62 for diagram of components.

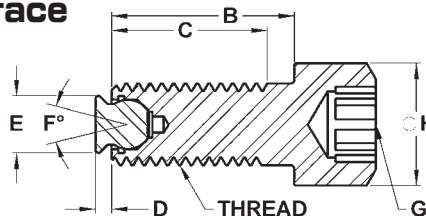
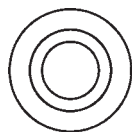
INCH

Delrin Part #	Stainless Part #	Diamond Part #	Thread	B Shank Length	C Thread Length	D Stand Off	E Contact Dia.	F Degree Swivel	G Int. Hex	H Head Dia.	Ball Dia.	Load Rating Lbs.*
TSH-0250-DC	TSH-0250-FC	TSH-0250-FC-DS	1/4-20	3/4	3/4	1/16	9/64	30	3/16	3/8	1/8	—
TSH-0251-DC	TSH-0251-FC	TSH-0251-FC-DS	1/4-20	1	1	1/16	9/64	30	3/16	3/8	1/8	—
TSH-0251 X 1.5-DC	TSH-0251 X 1.5-FC	TSH-0251 X 1.5-FC-DS	1/4-20	1-1/2	1	1/16	9/64	30	3/16	3/8	1/8	—
TSHF-0251 X 1.5-DC	TSHF-0251 X 1.5-FC	TSHF-0251 X 1.5-FC-DS	1/4-20	1-1/2	1-1/2	1/16	9/64	30	3/16	3/8	1/8	—
TSH-0280-DC	TSH-0280-FC	TSH-0280-FC-DS	1/4-28	3/4	3/4	1/16	9/64	30	3/16	3/8	1/8	—
TSH-0281-DC	TSH-0281-FC	TSH-0281-FC-DS	1/4-28	1	1	1/16	9/64	30	3/16	3/8	1/8	—
TSH-0281 X 1.5-DC	TSH-0281 X 1.5-FC	TSH-0281 X 1.5-FC-DS	1/4-28	1-1/2	1	1/16	9/64	30	3/16	3/8	1/8	—
TSHF-0281 X 1.5-DC	TSHF-0281 X 1.5-FC	TSHF-0281 X 1.5-FC-DS	1/4-28	1-1/2	1-1/2	1/16	9/64	30	3/16	3/8	1/8	—
TSH-0310-DC	TSH-0310-FC	TSH-0310-FC-DS	5/16-18	3/4	3/4	1/16	13/64	30	1/4	15/32	5/32	—
TSH-0312-DC	TSH-0312-FC	TSH-0312-FC-DS	5/16-18	1	1	1/16	13/64	30	1/4	15/32	5/32	—
TSH-0312 X 1.25-DC	TSH-0312 X 1.25-FC	TSH-0312 X 1.25-FC-DS	5/16-18	1-1/4	1-1/4	1/16	13/64	30	1/4	15/32	5/32	—
TSH-0312 X 1.75-DC	TSH-0312 X 1.75-FC	TSH-0312 X 1.75-FC-DS	5/16-18	1-3/4	1-1/8	1/16	13/64	30	1/4	15/32	5/32	—
TSHF-0312 X 1.75-DC	TSHF-0312 X 1.75-FC	TSHF-0312 X 1.75-FC-DS	5/16-18	1-3/4	1-3/4	1/16	13/64	30	1/4	15/32	5/32	—
TSH-0312 X 2-DC	TSH-0312 X 2-FC	TSH-0312 X 2-FC-DS	5/16-18	2	1-1/8	1/16	13/64	30	1/4	15/32	5/32	—
TSHF-0312 X 2-DC	TSHF-0312 X 2-FC	TSHF-0312 X 2-FC-DS	5/16-18	2	2	1/16	13/64	30	1/4	15/32	5/32	—
TSH-0320-DC	TSH-0320-FC	TSH-0320-FC-DS	5/16-24	3/4	3/4	1/16	13/64	30	1/4	15/32	5/32	—
TSH-0321-DC	TSH-0321-FC	TSH-0321-FC-DS	5/16-24	1	1	1/16	13/64	30	1/4	15/32	5/32	—
TSH-0321 X 1.25-DC	TSH-0321 X 1.25-FC	TSH-0321 X 1.25-FC-DS	5/16-24	1-1/4	1-1/4	1/16	13/64	30	1/4	15/32	5/32	—
TSH-0321 X 1.75-DC	TSH-0321 X 1.75-FC	TSH-0321 X 1.75-FC-DS	5/16-24	1-3/4	1-1/8	1/16	13/64	30	1/4	15/32	5/32	—
TSHF-0321 X 1.75-DC	TSHF-0321 X 1.75-FC	TSHF-0321 X 1.75-FC-DS	5/16-24	1-3/4	1-3/4	1/16	13/64	30	1/4	15/32	5/32	—
TSH-0321 X 2-DC	TSH-0321 X 2-FC	TSH-0321 X 2-FC-DS	5/16-24	2	1-1/8	1/16	13/64	30	1/4	15/32	5/32	—
TSHF-0321 X 2-DC	TSHF-0321 X 2-FC	TSHF-0321 X 2-FC-DS	5/16-24	2	2	1/16	13/64	30	1/4	15/32	5/32	—
TSH-0375-DC	TSH-0375-FC	TSH-0375-FC-DS	3/8-16	1	1	3/32	1/4	28	5/16	9/16	3/16	1,763
TSH-0375 X 1.5-DC	TSH-0375 X 1.5-FC	TSH-0375 X 1.5-FC-DS	3/8-16	1-1/2	1-1/2	3/32	1/4	28	5/16	9/16	3/16	1,763
TSH-0375 X 2-DC	TSH-0375 X 2-FC	TSH-0375 X 2-FC-DS	3/8-16	2	1-1/2	3/32	1/4	28	5/16	9/16	3/16	1,763
TSHF-0375 X 2-DC	TSHF-0375 X 2-FC	TSHF-0375 X 2-FC-DS	3/8-16	2	2	3/32	1/4	28	5/16	9/16	3/16	1,763
TSH-0375 X 2.5-DC	TSH-0375 X 2.5-FC	TSH-0375 X 2.5-FC-DS	3/8-16	2-1/2	1-1/2	3/32	1/4	28	5/16	9/16	3/16	1,763
TSHF-0375 X 2.5-DC	TSHF-0375 X 2.5-FC	TSHF-0375 X 2.5-FC-DS	3/8-16	2-1/2	2-1/2	3/32	1/4	28	5/16	9/16	3/16	1,763
TSH-0231-DC	TSH-0231-FC	TSH-0231-FC-DS	3/8-24	1	1	3/32	1/4	28	5/16	9/16	3/16	1,763
TSH-0231 X 1.5-DC	TSH-0231 X 1.5-FC	TSH-0231 X 1.5-FC-DS	3/8-24	1-1/2	1-1/2	3/32	1/4	28	5/16	9/16	3/16	1,763
TSH-0231 X 2-DC	TSH-0231 X 2-FC	TSH-0231 X 2-FC-DS	3/8-24	2	1-3/8	3/32	1/4	28	5/16	9/16	3/16	1,763
TSHF-0231 X 2-DC	TSHF-0231 X 2-FC	TSHF-0231 X 2-FC-DS	3/8-24	2	2	3/32	1/4	28	5/16	9/16	3/16	1,763
TSH-0231 X 2.5-DC	TSH-0231 X 2.5-FC	TSH-0231 X 2.5-FC-DS	3/8-24	2-1/2	1-3/8	3/32	1/4	28	5/16	9/16	3/16	1,763
TSHF-0231 X 2.5-DC	TSHF-0231 X 2.5-FC	TSHF-0231 X 2.5-FC-DS	3/8-24	2-1/2	2-1/2	3/32	1/4	28	5/16	9/16	3/16	1,763

* Load ratings do not apply to the delrin ball styles.

THRUST SCREW ASSEMBLIES

Socket Head | Flat Cone | Inch (continued)
Delrin | Stainless | Diamond Surface



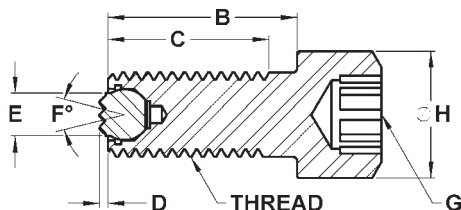
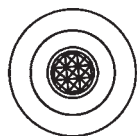
INCH (CONTINUED)

Delrin Part #	Stainless Part #	Diamond Part #	Thread	B Shank Length	C Thread Length	D Stand Off	E Contact Dia.	F Degree Swivel	G Int. Hex	H Head Dia.	Ball Dia.	Load Rating Lbs.*
TSH-0510 X 1.25-DC	TSH-0510 X 1.25-FC	TSH-0510 X 1.25-FC-DS	1/2-13	1-1/4	1-1/4	3/32	11/32	28	3/8	3/4	9/32	4,527
TSH-0510 X 1.5-DC	TSH-0510 X 1.5-FC	TSH-0510 X 1.5-FC-DS	1/2-13	1-1/2	1-1/2	3/32	11/32	28	3/8	3/4	9/32	4,527
TSH-0510 X 2-DC	TSH-0510 X 2-FC	TSH-0510 X 2-FC-DS	1/2-13	2	2	3/32	11/32	28	3/8	3/4	9/32	4,527
TSH-0510 X 2.5-DC	TSH-0510 X 2.5-FC	TSH-0510 X 2.5-FC-DS	1/2-13	2-1/2	1-1/2	3/32	11/32	28	3/8	3/4	9/32	4,527
TSHF-0510 X 2.5-DC	TSHF-0510 X 2.5-FC	TSHF-0510 X 2.5-FC-DS	1/2-13	2-1/2	2-1/2	3/32	11/32	28	3/8	3/4	9/32	4,527
TSH-0510 X 3-DC	TSH-0510 X 3-FC	TSH-0510 X 3-FC-DS	1/2-13	3	1-1/2	3/32	11/32	28	3/8	3/4	9/32	4,527
TSHF-0510 X 3-DC	TSHF-0510 X 3-FC	TSHF-0510 X 3-FC-DS	1/2-13	3	3	3/32	11/32	28	3/8	3/4	9/32	4,527
TSH-0500 X 1.25-DC	TSH-0500 X 1.25-FC	TSH-0500 X 1.25-FC-DS	1/2-20	1-1/4	1-1/4	3/32	11/32	28	3/8	3/4	9/32	4,527
TSH-0500 X 1.5-DC	TSH-0500 X 1.5-FC	TSH-0500 X 1.5-FC-DS	1/2-20	1-1/2	1-1/2	3/32	11/32	28	3/8	3/4	9/32	4,527
TSH-0500 X 2-DC	TSH-0500 X 2-FC	TSH-0500 X 2-FC-DS	1/2-20	2	2	3/32	11/32	28	3/8	3/4	9/32	4,527
TSH-0500 X 2.5-DC	TSH-0500 X 2.5-FC	TSH-0500 X 2.5-FC-DS	1/2-20	2-1/2	1-1/2	3/32	11/32	28	3/8	3/4	9/32	4,527
TSHF-0500 X 2.5-DC	TSHF-0500 X 2.5-FC	TSHF-0500 X 2.5-FC-DS	1/2-20	2-1/2	2-1/2	3/32	11/32	28	3/8	3/4	9/32	4,527
TSH-0500 X 3-DC	TSH-0500 X 3-FC	TSH-0500 X 3-FC-DS	1/2-20	3	1-1/2	3/32	11/32	28	3/8	3/4	9/32	4,527
TSHF-0500 X 3-DC	TSHF-0500 X 3-FC	TSHF-0500 X 3-FC-DS	1/2-20	3	3	3/32	11/32	28	3/8	3/4	9/32	4,527
TSH-0625-DC	TSH-0625-FC	TSH-0625-FC-DS	5/8-11	1-1/2	1-1/2	1/8	7/16	28	1/2	15/16	3/8	6,131
TSH-0625 X 2-DC	TSH-0625 X 2-FC	TSH-0625 X 2-FC-DS	5/8-11	2	2	1/8	7/16	28	1/2	15/16	3/8	6,131
TSH-0625 X 2.5-DC	TSH-0625 X 2.5-FC	TSH-0625 X 2.5-FC-DS	5/8-11	2-1/2	1-3/4	1/8	7/16	28	1/2	15/16	3/8	6,131
TSHF-0625 X 2.5-DC	TSHF-0625 X 2.5-FC	TSHF-0625 X 2.5-FC-DS	5/8-11	2-1/2	2-1/2	1/8	7/16	28	1/2	15/16	3/8	6,131
TSH-0625 X 3-DC	TSH-0625 X 3-FC	TSH-0625 X 3-FC-DS	5/8-11	3	1-3/4	1/8	7/16	28	1/2	15/16	3/8	6,131
TSHF-0625 X 3-DC	TSHF-0625 X 3-FC	TSHF-0625 X 3-FC-DS	5/8-11	3	3	1/8	7/16	28	1/2	15/16	3/8	6,131
TSH-0620-DC	TSH-0620-FC	TSH-0620-FC-DS	5/8-18	11/2	1-1/2	1/8	7/16	28	1/2	15/16	3/8	6,131
TSH-0620 X 2-DC	TSH-0620 X 2-FC	TSH-0620 X 2-FC-DS	5/8-18	2	2	1/8	7/16	28	1/2	15/16	3/8	6,131
TSH-0620 X 2.5-DC	TSH-0620 X 2.5-FC	TSH-0620 X 2.5-FC-DS	5/8-18	2-1/2	1-3/4	1/8	7/16	28	1/2	15/16	3/8	6,131
TSHF-0620 X 2.5-DC	TSHF-0620 X 2.5-FC	TSHF-0620 X 2.5-FC-DS	5/8-18	2-1/2	2-1/2	1/8	7/16	28	1/2	15/16	3/8	6,131
TSH-0620 X 3-DC	TSH-0620 X 3-FC	TSH-0620 X 3-FC-DS	5/8-18	3	1-3/4	1/8	7/16	28	1/2	15/16	3/8	6,131
TSHF-0620 X 3-DC	TSHF-0620 X 3-FC	TSHF-0620 X 3-FC-DS	5/8-18	3	3	1/8	7/16	28	1/2	15/16	3/8	6,131
TSH-0755 X 2-DC	TSH-0755 X 2-FC	TSH-0755 X 2-FC-DS	3/4-10	2	2	1/8	33/64	28	5/8	1-1/8	1/2	8,150
TSH-0755 X 2.5-DC	TSH-0755 X 2.5-FC	TSH-0755 X 2.5-FC-DS	3/4-10	2-1/2	2-1/2	1/8	33/64	28	5/8	1-1/8	1/2	8,150
TSH-0755 X 3-DC	TSH-0755 X 3-FC	TSH-0755 X 3-FC-DS	3/4-10	3	2	1/8	33/64	28	5/8	1-1/8	1/2	8,150
TSHF-0755 X 3-DC	TSHF-0755 X 3-FC	TSHF-0755 X 3-FC-DS	3/4-10	3	3	1/8	33/64	28	5/8	1-1/8	1/2	8,150
TSH-0750 X 2-DC	TSH-0750 X 2-FC	TSH-0750 X 2-FC-DS	3/4-16	2	2	1/8	33/64	28	5/8	1-1/8	1/2	8,150
TSH-0750 X 2.5-DC	TSH-0750 X 2.5-FC	TSH-0750 X 2.5-FC-DS	3/4-16	2-1/2	2-1/2	1/8	33/64	28	5/8	1-1/8	1/2	8,150
TSH-0750 X 3-DC	TSH-0750 X 3-FC	TSH-0750 X 3-FC-DS	3/4-16	3	2	1/8	33/64	28	5/8	1-1/8	1/2	8,150
TSHF-0750 X 3-DC	TSHF-0750 X 3-FC	TSHF-0750 X 3-FC-DS	3/4-16	3	3	1/8	33/64	28	5/8	1-1/8	1/2	8,150
TSH-1108 X 2-DC	TSH-1108 X 2-FC	TSH-1108 X 2-FC-DS	1"-8	2	2	5/32	11/16	32	3/4	1-1/2	5/8	14,757
TSH-1108 X 3-DC	TSH-1108 X 3-FC	TSH-1108 X 3-FC-DS	1"-8	3	3	5/32	11/16	32	3/4	1-1/2	5/8	14,757
TSH-1108 X 4-DC	TSH-1108 X 4-FC	TSH-1108 X 4-FC-DS	1"-8	4	2-1/2	5/32	11/16	32	3/4	1-1/2	5/8	14,757
TSHF-1108 X 4-DC	TSHF-1108 X 4-FC	TSHF-1108 X 4-FC-DS	1"-8	4	4	5/32	11/16	32	3/4	1-1/2	5/8	14,757
TSH-1114 X 2-DC	TSH-1114 X 2-FC	TSH-1114 X 2-FC-DS	1"-14	2	2	5/32	49/64	32	3/4	1-1/2	3/4	17,210
TSH-1114 X 3-DC	TSH-1114 X 3-FC	TSH-1114 X 3-FC-DS	1"-14	3	3	5/32	49/64	32	3/4	1-1/2	3/4	17,210
TSH-1114 X 4-DC	TSH-1114 X 4-FC	TSH-1114 X 4-FC-DS	1"-14	4	2-1/2	5/32	49/64	32	3/4	1-1/2	3/4	17,210
TSHF-1114 X 4-DC	TSHF-1114 X 4-FC	TSHF-1114 X 4-FC-DS	1"-14	4	4	5/32	49/64	32	3/4	1-1/2	3/4	17,210

*Load ratings do not apply to the delrin ball styles.

THRUST SCREW ASSEMBLIES

Socket Head | Tool Steel Ball | Inch Serrated



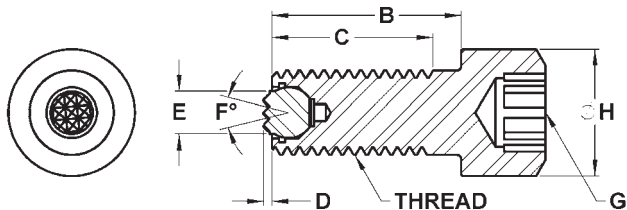
These thrust screw assemblies allow straight line static load thrust without transmitting torsional or radial force on to the contact area. The free floating ball design allows the thrust screw to continue to rotate while the ball remains stationary against the contact surface. Ideal for irregular shaped or contoured applications. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The replaceable ball is held in place with a viton O-ring which keeps contaminants out and allows the ball to swivel. The ball is made from M-2 high speed steel and heat treated to Rc 60/62. Replacement balls and O-rings can be ordered separately. See page 4 for tooth pattern specifications. See page 62 for diagram of components.

INCH

Part #	Thread	B Shank Length	C Thread Length	D Stand Off	E Contact Dia.	F Degree Swivel	G Int Hex	H Head Dia.	Ball Dia.	Tooth Pattern	Load Rating Lbs.
TSH-0375-S	3/8-16	1	1	1/16	5/32	28	5/16	9/16	3/16	SF	1,763
TSH-0375 X 1.5-S	3/8-16	1-1/2	1-1/2	1/16	5/32	28	5/16	9/16	3/16	SF	1,763
TSH-0375 X 2-S	3/8-16	2	1-1/4	1/16	5/32	28	5/16	9/16	3/16	SF	1,763
TSHF-0375 X 2-S	3/8-16	2	2	1/16	5/32	28	5/16	9/16	3/16	SF	1,763
TSH-0375 X 2.5-S	3/8-16	2-1/2	1-1/4	1/16	5/32	28	5/16	9/16	3/16	SF	1,763
TSHF-0375 X 2.5-S	3/8-16	2-1/2	2-1/2	1/16	5/32	28	5/16	9/16	3/16	SF	1,763
TSH-0231-S	3/8-24	1	1	1/16	5/32	28	5/16	9/16	3/16	SF	1,763
TSH-0231 X 1.5-S	3/8-24	1-1/2	1-1/2	1/16	5/32	28	5/16	9/16	3/16	SF	1,763
TSH-0231 X 2-S	3/8-24	2	1-1/4	1/16	5/32	28	5/16	9/16	3/16	SF	1,763
TSHF-0231 X 2-S	3/8-24	2	2	1/16	5/32	28	5/16	9/16	3/16	SF	1,763
TSH-0231 X 2.5-S	3/8-24	2-1/2	1-1/4	1/16	5/32	28	5/16	9/16	3/16	SF	1,763
TSHF-0231 X 2.5-S	3/8-24	2-1/2	2-1/2	1/16	5/32	28	5/16	9/16	3/16	SF	1,763
TSH-0510 X 1.25-S	1/2-13	1-1/4	1-1/4	1/16	1/4	28	3/8	3/4	9/32	SF	4,575
TSH-0510 X 1.5-S	1/2-13	1-1/2	1-1/2	1/16	1/4	28	3/8	3/4	9/32	SF	4,575
TSH-0510 X 2-S	1/2-13	2	2	1/16	1/4	28	3/8	3/4	9/32	SF	4,575
TSH-0510 X 2.5-S	1/2-13	2-1/2	1-1/2	1/16	1/4	28	3/8	3/4	9/32	SF	4,575
TSHF-0510 X 2.5-S	1/2-13	2-1/2	2-1/2	1/16	1/4	28	3/8	3/4	9/32	SF	4,575
TSH-0510 X 3-S	1/2-13	3	1-1/2	1/16	1/4	28	3/8	3/4	9/32	SF	4,575
TSHF-0510 X 3-S	1/2-13	3	3	1/16	1/4	28	3/8	3/4	9/32	SF	4,575
TSH-0500 X 1.25-S	1/2-20	1-1/4	1-1/4	1/16	1/4	28	3/8	3/4	9/32	SF	4,575
TSH-0500 X 1.5-S	1/2-20	1-1/2	1-1/2	1/16	1/4	28	3/8	3/4	9/32	SF	4,575
TSH-0500 X 2-S	1/2-20	2	2	1/16	1/4	28	3/8	3/4	9/32	SF	4,575
TSH-0500 X 2.5-S	1/2-20	2-1/2	1-1/2	1/16	1/4	28	3/8	3/4	9/32	SF	4,575
TSHF-0500 X 2.5-S	1/2-20	2-1/2	2-1/2	1/16	1/4	28	3/8	3/4	9/32	SF	4,575
TSH-0500 X 3-S	1/2-20	3	1-1/2	1/16	1/4	28	3/8	3/4	9/32	SF	4,575
TSHF-0500 X 3-S	1/2-20	3	3	1/16	1/4	28	3/8	3/4	9/32	SF	4,575
TSH-0625-S	5/8-11	1-1/2	1-3/4	1/16	5/16	28	1/2	15/16	3/8	EF	6,131
TSH-0625 X 2-S	5/8-11	2	2	1/16	5/16	28	1/2	15/16	3/8	EF	6,131
TSH-0625 X 2.5-S	5/8-11	2-1/2	1-3/4	1/16	5/16	28	1/2	15/16	3/8	EF	6,131
TSHF-0625 X 2.5-S	5/8-11	2-1/2	2-1/2	1/16	5/16	28	1/2	15/16	3/8	EF	6,131
TSH-0625 X 3-S	5/8-11	3	1-3/4	1/16	5/16	28	1/2	15/16	3/8	EF	6,131
TSHF-0625 X 3-S	5/8-11	3	3	1/16	5/16	28	1/2	15/16	3/8	EF	6,131
TSH-0620-S	5/8-18	1-1/2	1-1/2	1/16	5/16	28	1/2	15/16	3/8	EF	6,131
TSH-0620 X 2-S	5/8-18	2	2	1/16	5/16	28	1/2	15/16	3/8	EF	6,131
TSH-0620 X 2.5-S	5/8-18	2-1/2	1-3/4	1/16	5/16	28	1/2	15/16	3/8	EF	6,131
TSHF-0620 X 2.5-S	5/8-18	2-1/2	2-1/2	1/16	5/16	28	1/2	15/16	3/8	EF	6,131
TSH-0620 X 3-S	5/8-18	3	1-3/4	1/16	5/16	28	1/2	15/16	3/8	EF	6,131
TSHF-0620 X 3-S	5/8-18	3	3	1/16	5/16	28	1/2	15/16	3/8	EF	6,131

THRUST SCREW ASSEMBLIES

Socket Head | Tool Steel Ball | Inch (continued) Serrated

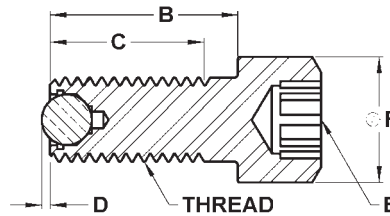
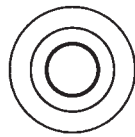


INCH (CONTINUED)

Part #	Thread	B Shank Length	C Thread Length	D Stand Off	E Contact Dia.	F Degree Swivel	G Int Hex	H Head Dia.	Ball Dia.	Tooth Pattern	Load Rating Lbs.
TSH-0755 X 2-S	3/4-10	2	2	1/8	3/8	40	5/8	1-1/8	1/2	EF	8,150
TSH-0755 X 2.5-S	3/4-10	2-1/2	2-1/2	1/8	3/8	40	5/8	1-1/8	1/2	EF	8,150
TSH-0755 X 3-S	3/4-10	3	2-1/2	1/8	3/8	40	5/8	1-1/8	1/2	EF	8,150
TSHF-0755 X 3-S	3/4-10	3	3	1/8	3/8	40	5/8	1-1/8	1/2	EF	8,150
TSH-0750 X 2-S	3/4-16	2	2	1/8	3/8	40	5/8	1-1/8	1/2	EF	8,150
TSH-0750 X 2.5-S	3/4-16	2-1/2	2-1/2	1/8	3/8	40	5/8	1-1/8	1/2	EF	8,150
TSH-0750 X 3-S	3/4-16	3	2	1/8	3/8	40	5/8	1-1/8	1/2	EF	8,150
TSHF-0750 X 3-S	3/4-16	3	3	1/8	3/8	40	5/8	1-1/8	1/2	EF	8,150
TSH-1108 X 2-S	1"-8	2	2	1/8	1/2	40	3/4	1-1/2	5/8	Fine	14,757
TSH-1108 X 3-S	1"-8	3	3	1/8	1/2	40	3/4	1-1/2	5/8	Fine	14,757
TSH-1108 X 4-S	1"-8	4	2-1/2	1/8	1/2	40	3/4	1-1/2	5/8	Fine	14,757
TSHF-1108 X 4-S	1"-8	4	4	1/8	1/2	40	3/4	1-1/2	5/8	Fine	14,757
TSH-1114 X 2-S	1"-14	2	2	1/8	5/8	34	3/4	1-1/2	3/4	Fine	17,210
TSH-1114 X 3-S	1"-14	3	3	1/8	5/8	34	3/4	1-1/2	3/4	Fine	17,210
TSH-1114 X 4-S	1"-14	4	2-1/2	1/8	5/8	34	3/4	1-1/2	3/4	Fine	17,210
TSHF-1114 X 4-S	1"-14	4	4	1/8	5/8	34	3/4	1-1/2	3/4	Fine	17,210

THRUST SCREW ASSEMBLIES

Socket Head | Round Ball | Inch Delrin | Stainless



These thrust screw assemblies allow straight line static load thrust without transmitting torsional or radial force on to the contact area. The free floating ball design allows the thrust screw to continue to rotate while the ball remains stationary against the contact surface. Ideal for irregular shaped or contoured applications. The housing is made from alloy steel, heat treated to Rc 43/46 with black oxide finish. The replaceable ball is held in place with a viton O-ring which keeps contaminants out and allows the ball to swivel. The delrin ball is made from non-marring white delrin. The stainless ball is made from 440c stainless steel and heat treated to Rc 58/62. Replacement balls and O-rings can be ordered separately. See page 62 for diagram of components.

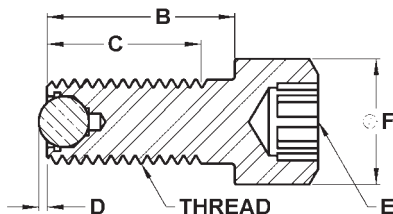
INCH

Delrin Part #	Stainless Part #	Thread	B Shank Length	C Thread Length	D Stand Off	E Int. Hex	F Head Dia.	Ball Dia.	Load Rating Lbs.*
TSH-0310-DB	TSH-0310-SB	5/16-18	3/4	3/4	.026	1/4	15/32	5/32	—
TSH-0312-DB	TSH-0312-SB	5/16-18	1	1	.026	1/4	15/32	5/32	—
TSH-0312 X 1.25-DB	TSH-0312 X 1.25-SB	5/16-18	1-1/4	1-1/4	.026	1/4	15/32	5/32	—
TSH-0312 X 1.75-DB	TSH-0312 X 1.75-SB	5/16-18	1-3/4	1-1/8	.026	1/4	15/32	5/32	—
TSHF-0312 X 1.75-DB	TSHF-0312 X 1.75-SB	5/16-18	1-3/4	1-3/4	.026	1/4	15/32	5/32	—
TSH-0312 X 2-DB	TSH-0312 X 2-SB	5/16-18	2	1-1/8	.026	1/4	15/32	5/32	—
TSHF-0312 X 2-DB	TSHF-0312 X 2-SB	5/16-18	2	2	.026	1/4	15/32	5/32	—
TSH-0320-DB	TSH-0320-SB	5/16-24	3/4	3/4	.026	1/4	15/32	5/32	—
TSH-0321-DB	TSH-0321-SB	5/16-24	1	1	.026	1/4	15/32	5/32	—
TSH-0321 X 1.25-DB	TSH-0321 X 1.25-SB	5/16-24	1-1/4	1-1/4	.026	1/4	15/32	5/32	—
TSH-0321 X 1.75-DB	TSH-0321 X 1.75-SB	5/16-24	1-3/4	1-1/8	.026	1/4	15/32	5/32	—
TSHF-0321 X 1.75-DB	TSHF-0321 X 1.75-SB	5/16-24	1-3/4	1-3/4	.026	1/4	15/32	5/32	—
TSH-0321 X 2-DB	TSH-0321 X 2-SB	5/16-24	2	1-1/8	.026	1/4	15/32	5/32	—
TSHF-0321 X 2-DB	TSHF-0321 X 2-SB	5/16-24	2	2	.026	1/4	15/32	5/32	—
TSH-0375-DB	TSH-0375-SB	3/8-16	1	1	.024	5/16	9/16	3/16	1,763
TSH-0375 X 1.5-DB	TSH-0375 X 1.5-SB	3/8-16	1-1/2	1-1/2	.024	5/16	9/16	3/16	1,763
TSH-0375 X 2-DB	TSH-0375 X 2-SB	3/8-16	2	1-1/2	.024	5/16	9/16	3/16	1,763
TSHF-0375 X 2-DB	TSHF-0375 X 2-SB	3/8-16	2	2	.024	5/16	9/16	3/16	1,763
TSH-0375 X 2.5-DB	TSH-0375 X 2.5-SB	3/8-16	2-1/2	1-1/2	.024	5/16	9/16	3/16	1,763
TSHF-0375 X 2.5-DB	TSHF-0375 X 2.5-SB	3/8-16	2-1/2	2-1/2	.024	5/16	9/16	3/16	1,763
TSH-0231-DB	TSH-0231-SB	3/8-24	1	1	.024	5/16	9/16	3/16	1,763
TSH-0231 X 1.5-DB	TSH-0231 X 1.5-SB	3/8-24	1-1/2	1-1/2	.024	5/16	9/16	3/16	1,763
TSH-0231 X 2-DB	TSH-0231 X 2-SB	3/8-24	2	1-3/8	.024	5/16	9/16	3/16	1,763
TSHF-0231 X 2-DB	TSHF-0231 X 2-SB	3/8-24	2	2	.024	5/16	9/16	3/16	1,763
TSH-0231 X 2.5-DB	TSH-0231 X 2.5-SB	3/8-24	2-1/2	1-3/8	.024	5/16	9/16	3/16	1,763
TSHF-0231 X 2.5-DB	TSHF-0231 X 2.5-SB	3/8-24	2-1/2	2-1/2	.024	5/16	9/16	3/16	1,763
TSH-0510 X 1.25-DB	TSH-0510 X 1.25-SB	1/2-13	1-1/4	1-1/4	.063	3/8	3/4	9/32	4,527
TSH-0510 X 1.5-DB	TSH-0510 X 1.5-SB	1/2-13	1-1/2	1-1/2	.063	3/8	3/4	9/32	4,527
TSH-0510 X 2-DB	TSH-0510 X 2-SB	1/2-13	2	2	.063	3/8	3/4	9/32	4,527
TSH-0510 X 2.5-DB	TSH-0510 X 2.5-SB	1/2-13	2-1/2	1-1/2	.063	3/8	3/4	9/32	4,527
TSHF-0510 X 2.5-DB	TSHF-0510 X 2.5-SB	1/2-13	2-1/2	2-1/2	.063	3/8	3/4	9/32	4,527
TSH-0510 X 3-DB	TSH-0510 X 3-SB	1/2-13	3	1-1/2	.063	3/8	3/4	9/32	4,527
TSHF-0510 X 3-DB	TSHF-0510 X 3-SB	1/2-13	3	3	.063	3/8	3/4	9/32	4,527
TSH-0500 X 1.25-DB	TSH-0500 X 1.25-SB	1/2-20	1-1/4	1-1/4	.063	3/8	3/4	9/32	4,527
TSH-0500 X 1.5-DB	TSH-0500 X 1.5-SB	1/2-20	1-1/2	1-1/2	.063	3/8	3/4	9/32	4,527
TSH-0500 X 2-DB	TSH-0500 X 2-SB	1/2-20	2	2	.063	3/8	3/4	9/32	4,527
TSH-0500 X 2.5-DB	TSH-0500 X 2.5-SB	1/2-20	2-1/2	1-1/2	.063	3/8	3/4	9/32	4,527
TSHF-0500 X 2.5-DB	TSHF-0500 X 2.5-SB	1/2-20	2-1/2	2-1/2	.063	3/8	3/4	9/32	4,527
TSH-0500 X 3-DB	TSH-0500 X 3-SB	1/2-20	3	1-1/2	.063	3/8	3/4	9/32	4,527
TSHF-0500 X 3-DB	TSHF-0500 X 3-SB	1/2-20	3	3	.063	3/8	3/4	9/32	4,527

* Load ratings do not apply to the delrin ball styles.

THRUST SCREW ASSEMBLIES

Socket Head | Round Ball | Inch (continued) Delrin | Stainless



INCH (CONTINUED)

Delrin Part #	Stainless Part #	Thread	B Shank Length	C Thread Length	D Stand Off	E Int. Hex	F Head Dia.	Ball Dia.	Load Rating Lbs.*
TSH-0625-DB	TSH-0625-SB	5/8-11	1-1/2	1-1/2	.063	1/2	15/16	3/8	6,131
TSH-0625 X 2-DB	TSH-0625 X 2-SB	5/8-11	2	2	.063	1/2	15/16	3/8	6,131
TSH-0625 X 2.5-DB	TSH-0625 X 2.5-SB	5/8-11	2-1/2	1-3/4	.063	1/2	15/16	3/8	6,131
TSHF-0625 X 2.5-DB	TSHF-0625 X 2.5-SB	5/8-11	2-1/2	2-1/2	.063	1/2	15/16	3/8	6,131
TSH-0625 X 3-DB	TSH-0625 X 3-SB	5/8-11	3	1-3/4	.063	1/2	15/16	3/8	6,131
TSHF-0625 X 3-DB	TSHF-0625 X 3-SB	5/8-11	3	3	.063	1/2	15/16	3/8	6,131
TSH-0620-DB	TSH-0620-SB	5/8-18	1-1/2	1-1/2	.063	1/2	15/16	3/8	6,131
TSH-0620 X 2-DB	TSH-0620 X 2-SB	5/8-18	2	2	.063	1/2	15/16	3/8	6,131
TSH-0620 X 2.5-DB	TSH-0620 X 2.5-SB	5/8-18	2-1/2	1-3/4	.063	1/2	15/16	3/8	6,131
TSHF-0620 X 2.5-DB	TSHF-0620 X 2.5-SB	5/8-18	2-1/2	2-1/2	.063	1/2	15/16	3/8	6,131
TSH-0620 X 3-DB	TSH-0620 X 3-SB	5/8-18	3	1-3/4	.063	1/2	15/16	3/8	6,131
TSHF-0620 X 3-DB	TSHF-0620 X 3-SB	5/8-18	3	3	.063	1/2	15/16	3/8	6,131
TSH-0755 X 2-DB	TSH-0755 X 2-SB	3/4-10	2	2	.107	5/8	1-1/8	1/2	8,150
TSH-0755 X 2.5-DB	TSH-0755 X 2.5-SB	3/4-10	2-1/2	2-1/2	.107	5/8	1-1/8	1/2	8,150
TSH-0755 X 3-DB	TSH-0755 X 3-SB	3/4-10	3	2	.107	5/8	1-1/8	1/2	8,150
TSHF-0755 X 3-DB	TSHF-0755 X 3-SB	3/4-10	3	3	.107	5/8	1-1/8	1/2	8,150
TSH-0750 X 2-DB	TSH-0750 X 2-SB	3/4-16	2	2	.107	5/8	1-1/8	1/2	8,150
TSH-0750 X 2.5-DB	TSH-0750 X 2.5-SB	3/4-16	2-1/2	2-1/2	.107	5/8	1-1/8	1/2	8,150
TSH-0750 X 3-DB	TSH-0750 X 3-SB	3/4-16	3	2	.107	5/8	1-1/8	1/2	8,150
TSHF-0750 X 3-DB	TSHF-0750 X 3-SB	3/4-16	3	3	.107	5/8	1-1/8	1/2	8,150
TSH-1108 X 2-DB	TSH-1108 X 2-SB	1"-8	2	2	.175	3/4	1-1/2	5/8	14,757
TSH-1108 X 3-DB	TSH-1108 X 3-SB	1"-8	3	3	.175	3/4	1-1/2	5/8	14,757
TSH-1108 X 4-DB	TSH-1108 X 4-SB	1"-8	4	2-1/2	.175	3/4	1-1/2	5/8	14,757
TSHF-1108 X 4-DB	TSHF-1108 X 4-SB	1"-8	4	4	.175	3/4	1-1/2	5/8	14,757
TSH-1114 X 2-DB	TSH-1114 X 2-SB	1"-14	2	2	.208	3/4	1-1/2	3/4	17,210
TSH-1114 X 3-DB	TSH-1114 X 3-SB	1"-14	3	3	.208	3/4	1-1/2	3/4	17,210
TSH-1114 X 4-DB	TSH-1114 X 4-SB	1"-14	4	2-1/2	.208	3/4	1-1/2	3/4	17,210
TSHF-1114 X 4-DB	TSHF-1114 X 4-SB	1"-14	4	4	.208	3/4	1-1/2	3/4	17,210

*Load ratings do not apply to the delrin ball styles.

Part Number Prefix Index

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Doing Business with Fairlane Products...

Purchasing From Fairlane Products

All items listed in this catalog are sold through a network of approved distributors. Original Equipment Manufacturers (OEM) may be able to purchase directly based on quantity, item and other criteria. Please call us at 586-294-6100 for assistance with any questions about purchasing or locating a distributor.

Website

Our website at www.fairlaneproducts.com was developed to allow users easy access to a full array of services. Within our website you can easily search our entire product line for the exact part to fit your application. Full product information including materials, dimension and other technical data is available. In addition, CAD models can be viewed and downloaded in a variety of formats so you can integrate the parts directly into your CAD database or projects.

Business Hours

Representatives are available to assist you from 8:00 a.m. to 4:30 p.m. Eastern Time, Monday through Friday.

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OEM quantity price discounts are available for many items and apply to the quantity of each specific part. We do our best to hold pricing, however, any published prices are subject to change without notice. Quoted prices will be valid for 30 days.

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All items in this catalog are normally stocked. Backordered parts are always given a high priority and will ship as soon as they become available. For OEM customers, normal shipment is UPS – FOB Fraser Michigan unless otherwise noted. Shipping charges are prepaid and added to the invoice. Special charges and guidelines apply to shipments outside the United States. Buyers are responsible for all applicable taxes and duties on international shipments.

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An RGA number must be issued before returning any products. All returns must be shipped via UPS and reference the RGA number on the outside of the box. Custom products cannot be returned.

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Everyone at Fairlane Products takes great pride in their work and truly strives for complete customer satisfaction. If you ever have any comments or suggestions on our products, service, catalogs or website, please let us know. They are appreciated and taken seriously.