

REPLACEABLE PAD OVERVIEW

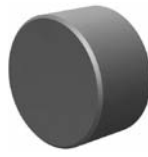
Rest Pads & Gripper Pads



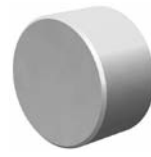
Solid Carbide
High impact carbide pads. Can be brazed or bonded into place.



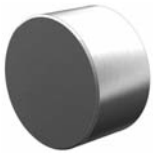
Carbide Tipped
Constructed with a high impact carbide pad brazed to a heat treated alloy steel body. Mounts with tapped hole or a flat on the outside diameter for set screw mounting.



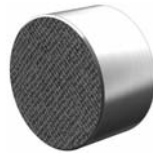
Hardened Steel
Made from 8620 steel, carburized and hardened to Rc 58/60 .050" case with black oxide finish. Mounts with tapped hole or counter bored hole.



Non-Marring Delrin
Manufactured from white Delrin. Mounts with counter bored or tapped 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.

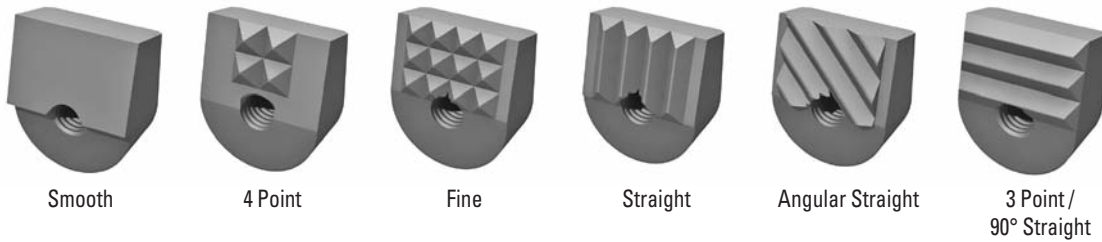


Sof-Top™ Urethane Surface
The urethane surface is permanently bonded to a 300 series stainless steel pad. The urethane provides excellent protection against damage on delicate work surfaces. They are available in three durometers. Tapped hole mounting.

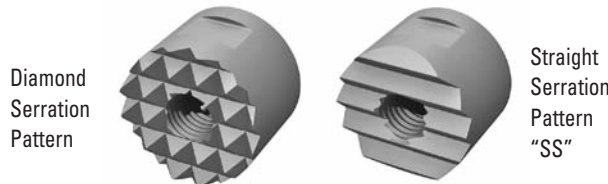
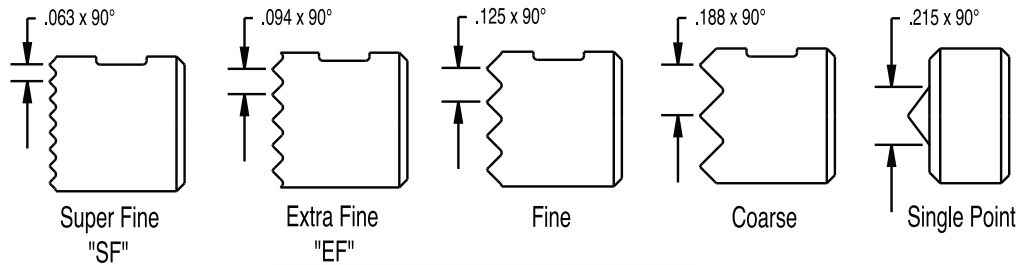
TOOTH PATTERN SPECIFICATIONS

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

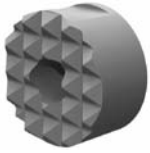


Round and Square Grippers



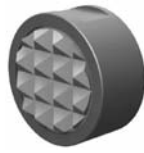
REPLACEABLE PAD OVERVIEW

Serrated Gripper Pads



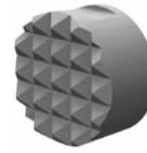
High Speed Tool Steel

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.



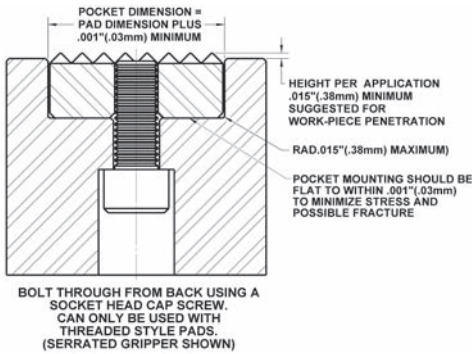
Solid Carbide

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.

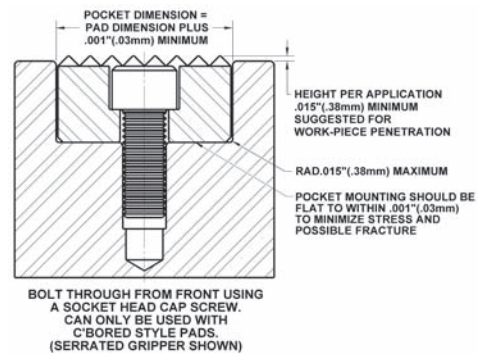
GRIPPER PAD AND REST PAD MOUNTING APPLICATIONS AND SPECIFICATIONS

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

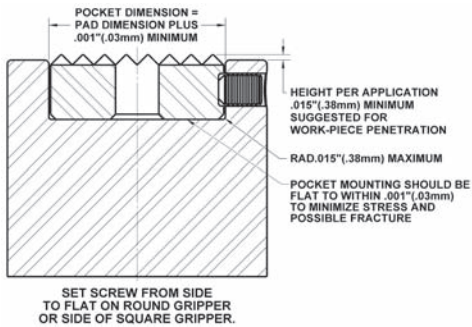
Round or square grippers and rest pads with tapped blind-hole or through hole tap.



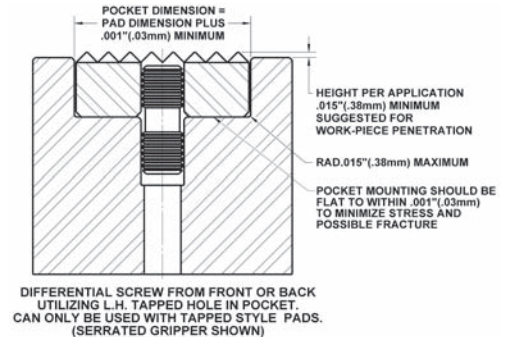
Round or square grippers and rest pads with counter-bored hole.



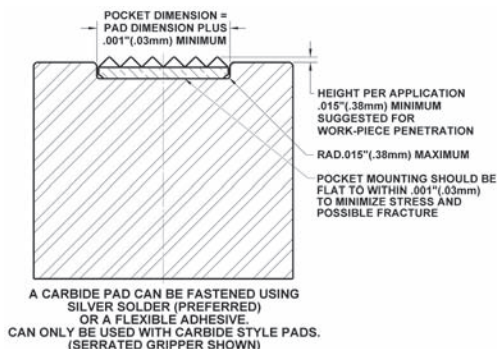
Round grippers with flat on the O.D. for set screw mounting, or square gripper.



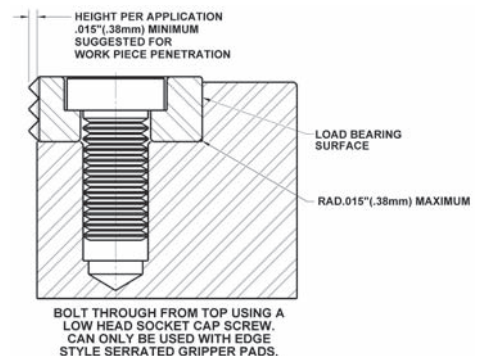
Round or square grippers with through tapped hole.



Round or square carbide pads.

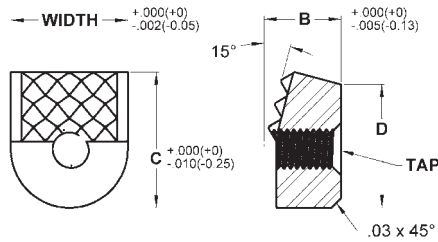


Counter-bored edge grippers.



FIXED GRIPPERS

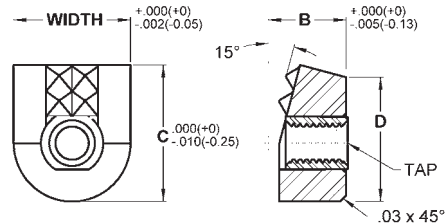
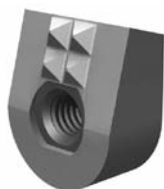
Angled Style | Tool Steel | Tapped | Inch & Metric



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 90 for tooth pattern specifications.

INCH					METRIC				
Part #	B	C	D	Tooth Pattern	Part #	B	C	D	Tooth Pattern
9/16" Width - #10-32 Tap					10mm Width - #10-32 Tap				
HS-110	3/8	.65	.60	Smooth	HS-110-10MM	3/8	.65	.60	Smooth
HS-127-4	3/8	.65	.60	4 Point	HS-127-4-10MM	3/8	.65	.60	4 Point
HS-127-12	3/8	.65	.60	Fine	HS-130-4-10MM	3/8	.65	.60	Straight
HS-130-4	3/8	.65	.60	Straight	HS-145-5-10MM	3/8	.65	.60	Angular
HS-145-5	3/8	.65	.60	Angular	HS-150-3-10MM	3/8	.65	.60	3 Point/90°ST
HS-150-3	3/8	.65	.60	3 Point/90°ST	10mm Width - M5x0.8 Tap				
9/16" Width - M5x0.8 Tap					MHS-110-10MM	3/8	.65	.60	Smooth
MHS-110	3/8	.65	.60	Smooth	MHS-127-4-10MM	3/8	.65	.60	4 Point
MHS-127-4	3/8	.65	.60	4 Point	MHS-130-4-10MM	3/8	.65	.60	Straight
MHS-127-12	3/8	.65	.60	Fine	MHS-145-5-10MM	3/8	.65	.60	Angular
MHS-130-4	3/8	.65	.60	Straight	MHS-150-3-10MM	3/8	.65	.60	3 Point/90°ST
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					

Angled Style | Solid Carbide | Tapped | Inch & Metric



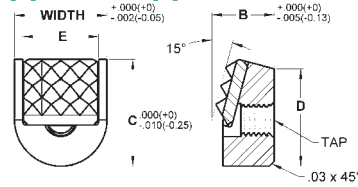
Made from solid carbide for high wear and high load applications. Serrated for positive holding in tough applications. Grippers are angled at 15 degrees to fit Woodworth, Maxi-Grip, and Ultra-Grip rocker style chucks. Thru-hole tap. See page 90 for tooth pattern specifications.

INCH					METRIC				
Part #	B	C	D	Tooth Pattern	Part #	B	C	D	Tooth Pattern
9/16" Width - #10-32 Tap					10mm Width - #10-32 Tap				
FSC-127-4	3/8	.65	.60	4 Point	FSC-127-4-10MM	3/8	.65	.60	4 Point
FSC-127-10	3/8	.65	.60	Fine	FSC-130-2-10MM	3/8	.65	.60	Straight
FSC-130-4	3/8	.65	.60	Straight	10mm Width - M5x0.8 Tap				
FSC-145-5	3/8	.65	.60	Angular	MFSC-127-4-10MM	3/8	.65	.60	4 Point
9/16" Width - M5x0.8 Tap					MFSC-130-2-10MM	3/8	.65	.60	Straight
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					



FIXED GRIPPERS

Angled Style | Carbide Tipped | Tapped | Inch & Metric

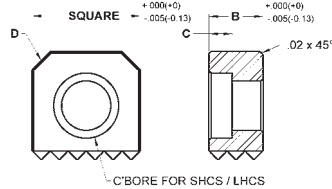
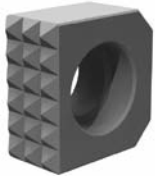


Constructed with a serrated carbide gripper pad brazed to a heat treated alloy steel body. Serrated for positive holding in tough applications. Grippers are angled at 15 degrees to fit Woodworth, Maxi-Grip, and Ultra-Grip rocker style chucks. See page 90 for tooth pattern specifications.

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 90 for tooth pattern specifications. See page 91 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

INCH WITH METRIC THREADS				
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	3.75	1.6 x 45°	EF
MHSE-9100	10	3.75	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

METRIC WITH INCH THREADS				
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