

Gripper Ordering Information

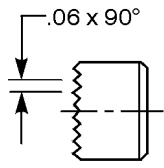


E&E SPECIAL PRODUCTS
 7200 MILLER DRIVE
 WARREN, MI 48092
 586-978-3377 / 586-978-3378 FAX

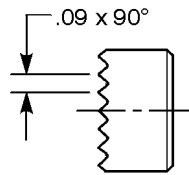
HOW TO ORDER

This is the largest line of workholding Grippers, Ball-Units, and Rest Pads anywhere. Although the line is extensive, finding the right workholding accessory for your application is easy. Grippers come in hardened tool steel or carbide with super-fine, extra-fine, fine, coarse and single point tooth patterns. Ball-Unit assemblies will accept replaceable Grippers in any style, or Rest Pads in steel or delrin. Popular mounting methods are shown below. Ordering information is provided throughout the catalog.

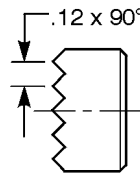
TOOTH PITCHES AVAILABLE



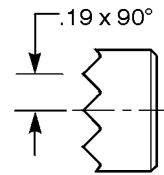
Super Fine
"SF"



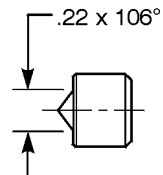
Extra Fine
"EF"



Fine

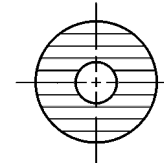
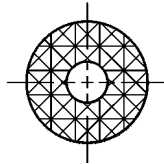


Coarse



Single Point

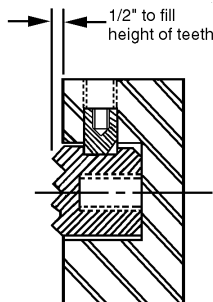
Diamond
Serration
Pattern



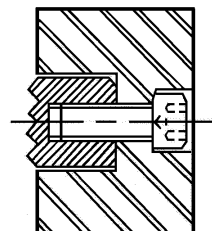
Straight
Serration
Pattern
"SS"

Serrations come in a choice of a two-way diamond pattern or a straight serration "SS" pattern. Types of patterns and pitches must be designated within each part number. See tables for available selection.

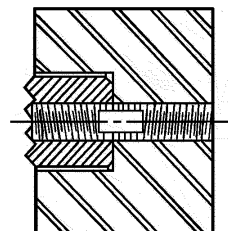
TYPICAL METHODS OF INSTALLING E & E GRIPPERS



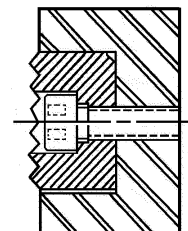
Set screw
from side
to flat on



Bolt through
from back
using cap



Differential
screw from front,
utilizing L.H.
tapped hole
behind gripper.



Bolt on from
front
with a socket
head cap
screw. Can be

Grippers "EHS" High Speed Tool Steel

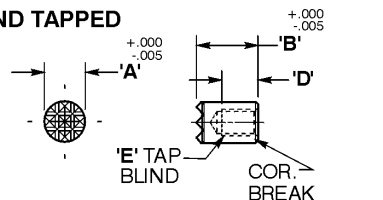
EHS-ROUND DESIGN-BLIND TAPPED							
CAD FILE NAME	PART NUMBER	A DIA.	B	C	D	E	TOOTH PATTERN
EHS20EF	EHS-20*	1/4 DIA	3/8	-	3/16	#8-32	EX-FINE/SUPER-FINE
	EHS-205*	1/4 DIA	1/2	-	5/16	#8-32	EX-FINE/SUPER-FINE
EHS30EF	EHS-30*	5/16	3/8	-	3/16	#8-32	EX-FINE/SUPER-FINE
	EHS-305*	5/16	1/2	-	5/16	#8-32	EX-FINE/SUPER-FINE
EHS40BL	EHS-40BL*	3/8	3/8	-	3/16	#10-32	EX-FINE/SUPER-FINE
EHS-ROUND DESIGN-DIAMOND SERRATIONS							
EHS40EF	EHS-40*	3/8 DIA	1/8	11/64	3/16	#10-32	EX-FINE/SUPER-FINE
EHS405EF	EHS-405*	3/8 DIA	1/2	15/64	3/16	#10-32	EX-FINE/SUPER-FINE
EHS50F	EHS-50*	1/2 DIA	3/8	11/64	3/16	#10-32	FINE/EX-FINE/SUPER-FINE
EHS51	EHS-51	1/2 DIA	1/2	15/64	3/16	#10-32	COARSE
EHS52F	EHS-52*	1/2 DIA	1/2	KEYWAY	-	#10-32	FINE/EX-FINE
EHS51	EHS-53*	1/2 DIA	1/2	15/64	3/16	#10-32	FINE/EX-FINE/SUPER-FINE
EHS54F	EHS-54*	1/2 DIA	.651	19/64	3/16	#10-32	FINE/EX-FINE
EHS63	EHS-62*	5/8 DIA	3/8	11/64	3/16	1/4-28	FINE/EX-FINE
	EHS-63	5/8 DIA	3/8	11/64	3/16	1/4-28	COARSE
EHS635	EHS-625*	5/8 DIA	112	15/64	3/16	1/4-28	FINE/EX-FINE
	EHS-635	5/8 DIA	112	15/64	3/16	1/4-28	COARSE
EHS76	EHS-75*	3/4 DIA	318	11/64	3/16	1/4-28	FINE/EX-FINE
	EHS-76	1/4 DIA	3/8	11/64	3/16	1/4-28	COARSE
EHS765	EHS-755*	3/4 DIA	1/2	15/64	3/16	1/4-28	FINE/EX-FINE
	EHS-765	3/4 DIA	1/2	15/64	3/16	1/4-28	COARSE
EHS81	EHS-81	1 DIA	318	11/64	3/16	1/4-28	COARSE
	EHS-82*	1 DIA	3/8	11/64	3/16	1/4-28	FINE/EX-FINE
EHS815	EHS-815	1 DIA	1/2	15/64	3/16	1/4-28	COARSE
	EHS-825*	1 DIA	15/16	1/2	3/16	1/4-28	FINE/EX-FINE
EHS-ROUND DESIGN-SINGLE POINT							
EHS201	EHS-20-1	1/4	3/8	5/64	1/8	#8-32	SINGLE POINT
	EHS-205-1	1/4	1/2	5/64	1/4	#8-32	SINGLE POINT
EHS301	EHS-30-1	5/16	3/8	5/64	1/8	#8-32	SINGLE POINT
	EHS-305-1	5/16	1/2	5/64	1/4	#8-32	SINGLE POINT
EHS401	EHS-40-1	3/8	3/8	5/64	1/8	#10-32	SINGLE POINT
	EHS-405-1	3/8	1/2	5/64	1/4	#10-32	SINGLE POINT
EHS501	EHS-50-1	1/2	3/8	5/64	1/8	#10-32	SINGLE POINT
	EHS-53-1	1/2	1/2	5/64	1/4	#10-32	SINGLE POINT
EHS-ROUND DESIGN-STRAIGHT SERRATIONS							
EHS40SSEF	EHS-40-SS*	3/8	3/8	11/64	3/16	#10-32	EX/FINE/SUPER-FINE
EHS405SSEF	EHS-405-SS*	3/8	1/2	15/64	3/16	#10-32	EX/FINE/SUPER-FINE
EHS50SSF	EHS-50-SS*	1/2	3/8	11/64	3/16	#10-32	FINE/EX-FINE/SUPER-FINE
	EHS-51-SS	1/2	1/2	15/64	3/16	#10-32	COARSE
EHS51SS	EHS-53-SS*	1/2	1/2	15/64	3/16	#10-32	FINE/EX-FINE/SUPER-FINE
	EHS-62-SS*	5/8	3/8	11/64	3/16	1/4-28	FINE/EX-FINE
EHS63SS	EHS-63-SS	5/8	3/8	11/64	3/16	1/4-28	COARSE
	EHS-625-SS*	5/8	1/2	15/64	3/16	1/4-28	FINE/EX-FINE
EHS635SS	EHS-635-SS	5/8	1/2	15/64	3/16	1/4-28	COARSE
	EHS-75-SS*	3/4	3/8	11/64	3/16	1/4-28	FINE/EX-FINE
EHS76SS	EHS-76-SS	3/4	3/8	11/64	3/16	1/4-28	COARSE
	EHS-755-SS*	3/4	1/2	15/64	3/16	1/4-28	FINE/EX-FINE
EHS765SS	EHS-765-SS	3/4	1/2	15/64	3/16	1/4-28	COARSE
	EHS-81-SS	1	3/8	11/64	3/16	1/4-28	COARSE
EHS81SS	EHS-82-SS*	1	3/8	11/64	3/16	1/4-28	FINE/EX-FINE
	EHS-815-SS	1	1/2	15/64	3/16	1/4-28	COARSE
EHS815SS	EHS-825-SS*	1	1/2	15/64	3/16	1/4-28	FINE/EX-FINE

* Optional tooth patterns are available, specify "SF" for Super-Fine, "EF" for Extra Fine. Fine tooth patterns will be shipped unless noted otherwise. Specials quoted on request.

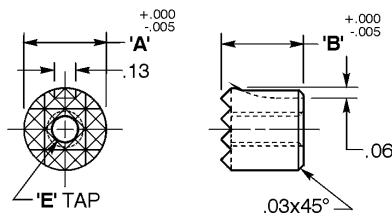
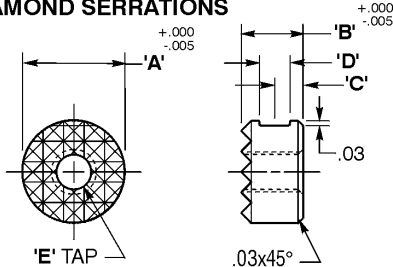
.06 x 90 = SUPER-FINE .09 x 90 = EXTRA-FINE .12 x 90 = FINE
 .19 x 90 = COARSE .22 x 106 = SINGLE POINT



BLIND TAPPED

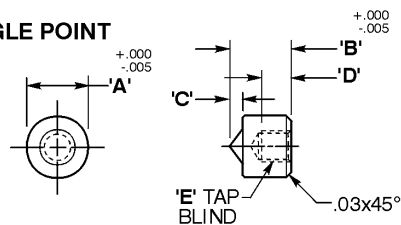


ROUND DESIGN DIAMOND SERRATIONS

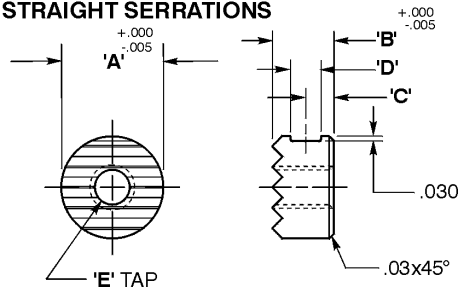


Keyway in Part
 NO. EHS-52 & EHS-52EF Only.

SINGLE POINT



ROUND DESIGN STRAIGHT SERRATIONS



CAD Directory

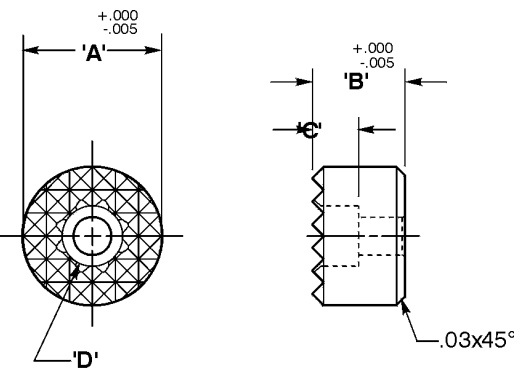
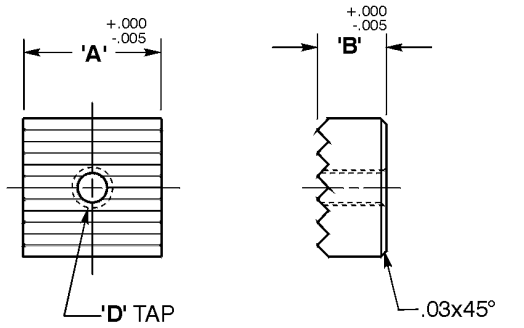
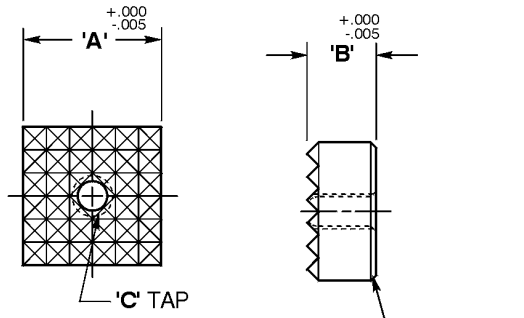
Mach-Tool\Grippers

Note: The shortest standard components is given, you may "stretch" the unit to the desired length.



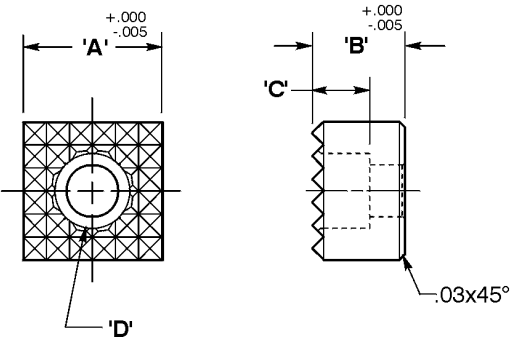
Grippers "EHS" High Speed Tool Steel

EHS-SQUARE DESIGN						
CAD FILE NAME	PART NUMBER	A SQUARE	B	C	D	TOOTH PATTERN
EHS90	EHS-90*	3/8	3/8	#10-32	-	EX-FINE/SUPER-FINE
	EHS-905*	3/8	1/2	#10-32	-	EX-FINE/SUPER-FINE
EHS96	EHS-95*	1/2	3/8	#10-32	-	FINE/EX-FINE/SUPER-FINE
	EHS-955*	1/2	1/2	#10-32	-	FINE/EX-FINE/SUPER-FINE
	EHS-96	1/2	3/8	#10-32	-	COARSE
EHS963	EHS-965	1/2	1/2	#10-32	-	COARSE
	EHS-962*	5/8	3/8	#10-32	-	FINE/EX-FINE
	EHS-963	5/8	3/8	#10-32	-	COARSE
EHS98	EHS-9625*	5/8	1/2	#10-32	-	FINE/EX-FINE
	EHS-9635	5/8	1/2	#10-32	-	COARSE
	EHS-97*	3/4	3/8	#10-32	-	FINE/EX-FINE
	EHS-98	3/4	3/8	#10-32	-	COARSE
EHS985	EHS-975*	3/4	1/2	#10-32	-	FINE/EX-FINE
	EHS-985	3/4	1/2	#10-32	-	COARSE
	EHS-101	1	3/8	1/4-28	-	FINE/EX-FINE
EHS102	EHS-102	1	3/8	1/4-28	-	COARSE
	EHS-105*	1	1/2	1/4-28	-	FINE/EX-FINE
	EHS-106*	1	1/2	1/4-28	-	COARSE
EHS-SQUARE DESIGN-STRAIGHT SERRATIONS						
EHS90SS	EHS-90-SS*	3/8	3/8	#10-32	-	EX-FINE/SUPER-FINE
	EHS-905-SS*	3/8	1/2	#10-32	-	EX-FINE/SUPER-FINE
EHS96SS	EHS-95-SS*	1/2	3/8	#10-32	-	FINE/EX-FINE/SUPER-FINE
	EHS-955-SS*	1/2	1/2	#10-32	-	FINE/EX-FINE/SUPER-FINE
	EHS-96-SS	1/2	3/8	#10-32	-	COARSE
HS963SS	EHS-965-SS	1/2	1/2	#10-32	-	COARSE
	EHS-962-SS*	5/8	3/8	#10-32	-	FINE/EX-FINE
	EHS-9625-SS*	5/8	1/2	#10-32	-	FINE/EX-FINE
EHS98SS	EHS-963-SS	5/8	3/8	#10-32	-	COARSE
	EHS-9635-SS*	5/8	1/2	#10-32	-	COARSE
	EHS-97-SS*	3/4	3/8	#10-32	-	FINE/EX-FINE
EHS985SS	EHS-975-SS*	3/4	1/2	#10-32	-	FINE/EX-FINE
	EHS-98-SS	3/4	3/8	#10-32	-	COARSE
	EHS-985-SS	3/4	1/2	#10-32	-	COARSE
EHS102SS	EHS-101-SS*	1	3/8	1/4-28	-	FINE/EX-FINE
	EHS-102-SS	1	3/8	1/4-28	-	COARSE
	EHS-105-SS*	1	1/2	1/4-28	-	FINE/EX-FINE
EHS-106-SS	1	1/2	1/4-28	-	COARSE	



EHS-ROUND-"C"-BORE DESIGN						
CAD FILE NAME	PART NUMBER	A DIA	B	C	D	TOOTH PATTERN
EHS50C	EHS-50-C*	1/2	3/8	7/32	#8 SHCS	FINE/EX-FINE/SUPER-FINE
	EHS-53-C*	1/2	1/2	7/32	#8 SHCS	FINE/EX-FINE/SUPER-FINE
EHS62C	EHS-62-C*	5/8	3/8	7/32	#8 SHCS	FINE/EX-FINE
	EHS-625-C*	5/8	1/2	7/32	#8 SHCS	FINE/EX-FINE
EHS76C	EHS-75-C*	3/4	3/8	1/4	#10 SHCS	FINE/EX-FINE
	EHS-755-C*	3/4	1/2	1/4	#10 SHCS	FINE/EX-FINE
	EHS-76-C	3/4	3/8	1/4	#10 SHCS	COARSE
EHS81C	EHS-765-C	3/4	1/2	5/16	#10 SHCS	COARSE
EHS81C	EHS-81-C	1	1/2	5/16	1/4 SHCS	COARSE
EHS82C	EHS-82-C*	1	1/2	5/16	1/4 SHCS	FINE/EX-FINE

EHS-SQUARE-"C"-BORE DESIGN						
CAD FILE NAME	PART NUMBER	A SQUARE	B	C	D C'BORE	TOOTH PATTERN
EHS92CF	EHS-92-C*	1/2	3/8	1/4	#10 SHCS	FINE/EX-FINE/SUPER-FINE
	EHS-95-C*	1/2	1/2	1/4	#10 SHCS	FINE/EX-FINE/SUPER-FINE
EHS963C	EHS-962-C*	5/8	3/8	1/4	#10 SHCS	FINE/EX-FINE
	EHS-9625-C*	5/8	1/2	1/4	#10 SHCS	FINE/EX-FINE
	EHS-963-C*	5/8	3/8	1/4	#10 SHCS	COARSE
EHS98C	EHS-9635-C*	5/8	1/2	1/4	#10 SHCS	COARSE
	EHS-97-C*	3/4	1/2	5/16	1/4 SHCS	FINE/EX-FINE
EHS102C	EHS-98-C	3/4	1/2	5/16	1/4 SHCS	COARSE
	EHS-101-C*	1	1/2	5/16	1/4 SHCS	FINE/EX-FINE
EHS-102-C	1	1/2	5/16	1/4 SHCS	COARSE	



* Optional tooth patterns are available, specify "SF" for Super-Fine, "EF" for Extra Fine. Fine tooth patterns will be shipped unless noted otherwise. Specials quoted on request.

.06 x 90 = SUPER-FINE .09 x 90 = EXTRA-FINE .12 x 90 = FINE .19 x 90 = COARSE

CAD Directory
 Mach-Tool\Grippers

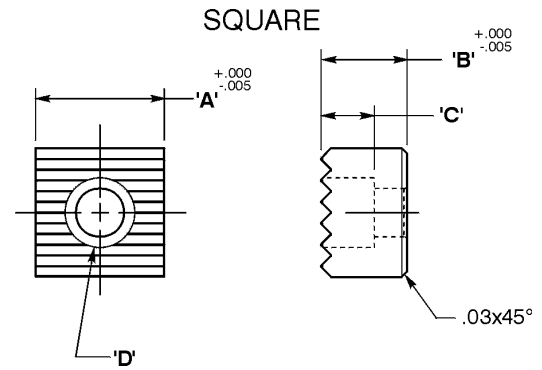
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Machine Tool Components

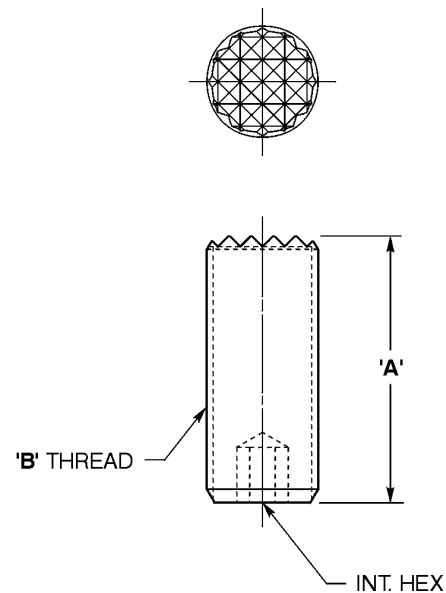
Grippers "EHS" High Speed Tool Steel

EHS-SQUARE-"C"-BORE DESIGN-STRAIGHT SERRATIONS							
CAD FILE NAME	PART NUMBER	A DIA.	B	C	D	TOOTH	PATTERN
EHS92CSS	EHS-92-C-SS*	1/2	3/8	1/4	#10 SHCS	FINE/EX-FINE/SUPER-FINE	
	EHS-95-C-SS*	1/2	1/2	1/4	#10 SHCS	FINE/EX-FINE/SUPER-FINE	
EHS963CSS	EHS-962-C-SS*	5/8	3/8	1/4	#10 SHCS	FINE/EX-FINE	
	EHS-9625-C-SS*	5/8	1/2	1/4	#10 SHCS	FINE/EX-FINE	
	EHS-963-C-SS	5/8	3/8	1/4	#10 SHCS	COARSE	
EHS98CSS	EHS-9635-C-SS	5/8	1/2	1/4	#10 SHCS	COARSE	
	EHS-97-C-SS*	3/4	1/2	5/16	1/4 SHCS	FINE/EX-FINE	
EHS102CSS	EHS-98-C-SS	3/4	1/2	5/16	1/4 SHCS	COARSE	
	EHS-101-C-SS*	1	1/2	5/16	1/4 SHCS	FINE/EX-FINE	
	EHS-102-C-SS	1	1/2	5/16	1/4 SHCS	COARSE	

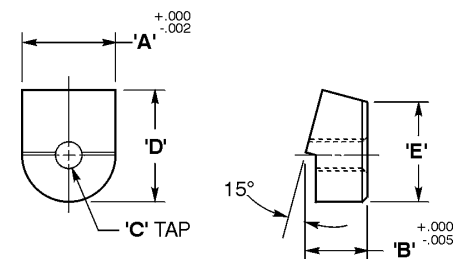
* Optional tooth patterns are available, specify "SF" for Super-Fine, "EF" for Extra-Fine to the end of the part number.



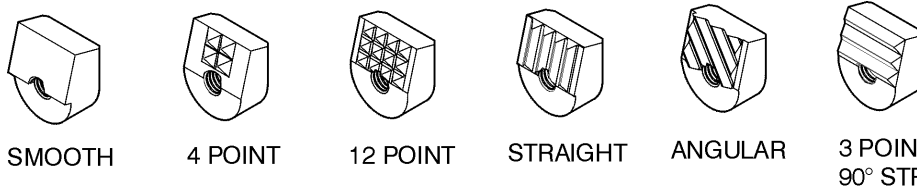
EHS-ADJUSTABLE					
CAD FILE NAME	PART NUMBER	A	B	INT HEX	TOOTH PATTERN
EHS0230	EHS-0230	1/2	3/8-24	1/8	EX-FINE
	EHS-0231	1	3/8-24	1/8	EX-FINE
	EHS-0235	1 1/2	3/8-24	1/8	EX-FINE
	EHS-0370	1/2	3/8-16	1/8	EX-FINE
	EHS-0371	1	3/8-16	1/8	EX-FINE
EHS0240	EHS-0375	1 1/2	3/8-16	1/8	EX-FINE
	EHS-0240	1	1/2-20	3/16	FINE
	EHS-0500	1 1/2	1/2-20	3/16	FINE
	EHS-0510	1	1/2-13	3/16	FINE
EHS06201	EHS-0515	1 1/2	1/2-13	3/16	FINE
	EHS-0620x1	1	5/8-18	1/4	FINE
	EHS-0620	1 1/2	5/8-18	1/4	FINE
	EHS-0625x1	1	5/8-11	1/4	FINE
EHS07501	EHS-0625	1 1/2	5/8-11	1/4	FINE
	EHS-0750x1	1	3/4-16	5/16	FINE
	EHS-0750	1 1/2	3/4-16	5/16	FINE
	EHS-0755x1	1	3/4-10	5/16	FINE
	EHS-0755	1 1/2	3/4-10	5/16	FINE



EHS-ANGLE GRIP							
CAD FILE NAME	PART NUMBER	A	B	C	D	E	TOOTH PATTERN
EHS110	EHS-110	9/16	3/8	#10-32	.65	.60	SMOOTH
EHS1274	EHS-127-4	9/16	3/8	#10-32	.65	.60	4-POINT Hex
EHS12712	EHS-127-12	9/16	3/8	#10-32	.65	.60	FINE
EHS1284	EHS-128-4	3/4	1/2	1/4-28	.88	.81	4-POINT
EHS12822	EHS-128-22	3/4	1/2	1/4-28	.88	.81	FINE
EHS1583	EHS-158-3	3/4	1/2	1/4-28	.88	.81	3 POINT/90 STRAIGHT
EHS1304	EHS-130-4	9/16	3/8	#10-32	.65	.60	STRAIGHT
EHS1455	EHS-145-5	9/16	3/8	#10-32	.65	.60	ANGULAR
EHS1503	EHS-150-3	9/16	3/8	#10-32	.65	.60	3 POINT/90 STRAIGHT
EHS11010MM	EHS-110-10MM	.394	3/8	#10-32	.65	.60	SMOOTH
EHS127410MM	EHS-127-4-10MM	.394	3/8	#10-32	.65	.60	4-POINT
EHS130410MM	EHS-130-4-10MM	.394	3/8	#10-32	.65	.60	STRAIGHT
EHS145510MM	EHS-145-5-10MM	.394	3/8	#10-32	.65	.60	ANGULAR



EHS-110 SHOWN



CAD Directory

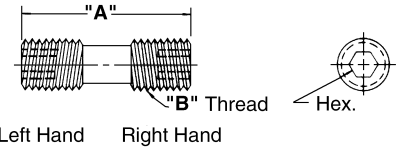
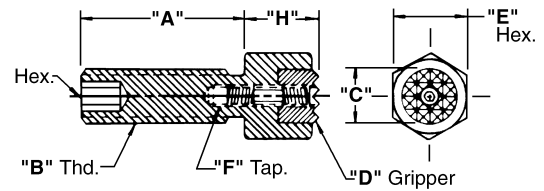
Mach-Tool\Grippers

Note: The shortest standard components is given, you may "stretch" the unit to the desired length.

Grippers "EAJH" Adjustagrip™

CAD FILE NAME	PART NUMBER	A DIA.	B THD	C BORE	D GRIPPER	E HEX	F INT. TAP	G INT. HEX	H HEAD HT
EHS0230	EAJH-0230	1/2	3/8-24	3/8	EHS-40	9/16	#10-32 LH	3/16	1/2
	EAJH-0231	1	3/8-24	3/8	EHS-40	9/16	#10-32 LH	1/8	1/2
	EAJH-0231x1 1/2	1 1/2	3/8-24	3/8	EHS-40	9/16	#10-32 LH	1/8	1/2
	EAJH-0370	1/2	3/8-16	3/8	EHS-40	9/16	#10-32 LH	3/16	1/2
	EAJH-0375	1	3/8-16	3/8	EHS-40	9/16	#10-32 LH	1/8	1/2
EHS0240	EAJH-0375x1 1/2	1 1/2	3/8-16	3/8	EHS-40	9/16	#10-32 LH	1/8	1/2
	EAJH-0240	1	1/2-20	1/2	EHS-50	11/16	#10-32 LH	3/16	5/8
	EAJH-0500	1 1/2	1/2-20	1/2	EHS-50	11/16	#10-32 LH	3/16	5/8
	EAJH-0510	1	1/2-13	1/2	EHS-50	11/16	#10-32 LH	3/16	5/8
EHS06201	EAJH-0515	1 1/2	1/2-13	1/2	EHS-50	11/16	#10-32 LH	3/16	5/8
	EAJH-0620x1	1	5/8-18	5/8	EHS-62	13/16	1/4-28 LH	1/4	5/8
	EAJH-0620x2	2	5/8-18	5/8	EHS-62	13/16	1/4-28 LH	1/4	5/8
	EAJH-0625x1	1	5/8-11	5/8	EHS-62	13/16	1/4-28 LH	1/4	5/8
EHS07501	EAJH-0625x2	2	5/8-11	5/8	EHS-62	13/16	1/4-28 LH	1/4	5/8
	EAJH-0750x1	1	3/4-16	3/4	EHS-75	15/16	1/4-28 LH	5/16	5/8
	EAJH-0750x2 1/2	2 1/2	3/4-16	3/4	EHS-75	15/16	1/4-28 LH	5/16	5/8
	EAJH-0755x1	1	3/4-10	3/4	EHS-75	15/16	1/4-28 LH	5/16	5/8
	EAJH-0755x2 1/2	2 1/2	3/4-10	3/4	EHS-75	15/16	1/4-28 LH	5/16	5/8

All Adjustagrips come with differential screws. Grippers must be purchased separately, note column "D" above.



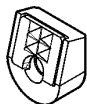
DIFFERENTIAL SCREW			
PART NUMBER	A	B THD	C HEX
EDS-1032	.590	#10-32	3/32
EDS-2528	.625	1/4-28	1/8

Grippers "ECT" Carbide Tipped

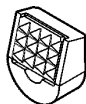
ECT-ROUND								
CAD FILE NAME	PART NUMBER	A DIA	B	C	D	E	F TAP	TOOTH PATTERN
ECT830	ECT-830	3/8	3/8	11/64	3/16	5/16	#10-32	EX-FINE
ECT8304	ECT-830-4	3/8	3/8	11/64	3/16	5/16	#10-32	4-POINT
ECT835	ECT-835	3/8	1/2	15/64	3/16	5/16	#10-32	EX-FINE
ECT8354	ECT-835-4	3/8	1/2	15/64	3/16	5/16	#10-32	4-POINT
ECT840	ECT-840*	1/2	1/2	15/64	3/16	3/8	#10-32	FINE/EX-FINE
ECT8404	ECT-840-4	1/2	1/2	15/64	3/16	3/8	#10-32	4-POINT
ECT841	ECT-841*	1/2	3/8	11/64	3/16	3/8	#10-32	FINE/EX-FINE
ECT8414	ECT-841-4	1/2	3/8	11/64	3/16	3/8	#10-32	4-POINT
ECT842	ECT-842*	1/2	.651	19/64	3/16	3/8	#10-32	FINE/EX-FINE
ECT8424	ECT-842-4	1/2	.651	19/64	3/16	3/8	#10-32	4-POINT
ECT844	ECT-844*	1/2	1/2	KEYWAY	-	3/8	#10-32	FINE/EX-FINE
ECT8444	ECT-844-4	1/2	1/2	KEYWAY	-	3/8	#10-32	4-POINT
ECT850	ECT-850*	5/8	3/8	11/64	3/16	1/2	1/4-28	FINE/EX-FINE
ECT855	ECT-855*	5/8	1/2	15/64	3/16	1/2	1/4-28	FINE/EX-FINE
ECT860	ECT-860*	3/4	3/8	11/64	3/16	5/8	1/4-28	FINE/EX-FINE
ECT862	ECT-862*	3/4	1/2	15/64	3/16	5/8	1/4-28	FINE/EX-FINE
ECT865	ECT-865*	1	3/8	11/64	3/16	3/4	1/4-28	FINE/EX-FINE
ECT071	ECT-071*	5/8	5/8	KEYWAY	-	1/2	1/4-28	FINE/EX-FINE
ECT0714	ECT-071-4	5/8	5/8	KEYWAY	-	1/2	1/4-28	4-POINT
ECT-SQUARE								
ECT870	ECT-870	1/2	3/8	-	-	13/32	#10-32	FINE/EX-FINE
ECT875	ECT-875	1/2	1/2	-	-	13/32	#10-32	FINE/EX-FINE

*Optional tooth patterns available, must add "EF" for Extra-Fine to end of part number, otherwise gripper will be supplied with Fine tooth pattern.

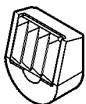
ECT-ANGLE GRIP						
CAD FILE NAME	PART NUMBER	A	B	C	D	TOOTH PATTERN
ECT1274	ECT-127-4	9/16	3/8	#10-32	15/32	4-POINT
ECT12712	ECT-127-12	9/16	3/8	#10-32	15/32	FINE
ECT1304	ECT-130-4	9/16	3/8	#10-32	15/32	STRAIGHT
ECT1455	ECT-145-5	9/16	3/8	#10-32	15/32	ANGULAR



4 POINT



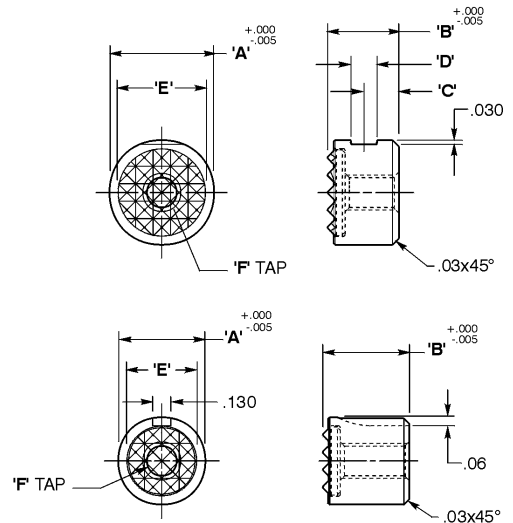
12 POINT



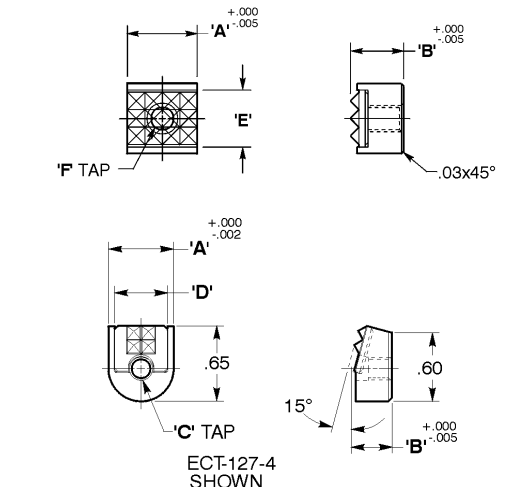
STRAIGHT



ANGULAR



KEYWAY



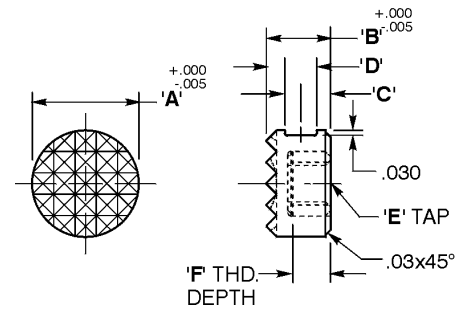
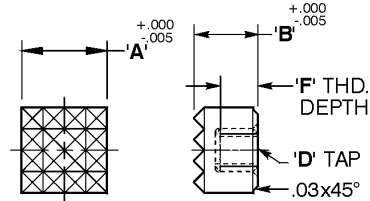
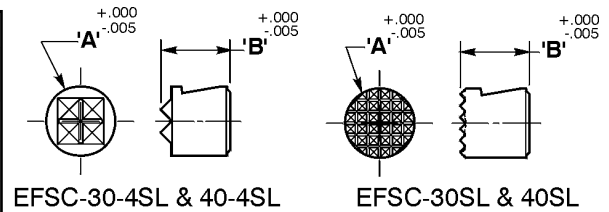
CAD Directory

Mach-Tool/Grippers

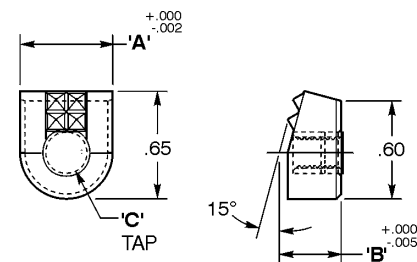
Note: The shortest standard components is given, you may "stretch" the unit to the desired length.

Grippers "EFSC" Solid Carbide

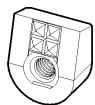
EFSC-ROUND								
CAD FILE NAME	PART NUMBER	A	B	C	D	E	F TAP	TOOTH PATTERN
EFSC30SL	EFSC-30-SL	5/16	3/8	-	-	-	-	EX-FINE
EFSC304SL	EFSC-30-4-SL	5/16	3/8	-	-	-	-	4-POINT
EFSC40SL	EFSC-40-SL	3/8	3/8	-	-	-	-	EX-FINE
EFSC404SL	EFSC-840-4-SL	3/8	3/8	-	-	-	-	4-POINT
EFSC841	EFSC-840	1/2	3/8	11/64	3/16	#10-32	3/16	FINE
EFSC8444	EFSC-844-4	1/2	1/2	15/64	3/16	#10-32	5/16	4-POINT
EFSC844	EFSC-844	1/2	1/2	15/64	3/16	#10-32	5/16	FINE
EFSC844SL	EFSC-844-SL	1/2	1/2	15/64	3/16	-	-	FINE
EFSC0704	EFSC-070-4	1/2	1/2	-	KEYWAY	#10-32	5/16	4-POINT
EFSC070	EFSC-070	1/2	1/2	-	KEYWAY	#10-32	5/16	FINE
EFSC850	EFSC-850	5/8	3/8	11/64	3/16	1/4-28	3/16	FINE
EFSC860	EFSC-860	3/4	3/8	11/64	3/16	1/4-28	3/16	FINE
EFSC-SQUARE								
EFSC870	EFSC-870	1/2	3/8	-	#10-32	-	3/16	FINE
EFSC875	EFSC-875	1/2	1/2	-	#10-32	-	5/16	FINE



EFSC-ANGLE GRIP					
CAD FILE NAME	PART NUMBER	A	B	C	TOOTH PATTERN
EFSC1274	EFSC-127-4	9/16	3/8	#10-32	4-POINT
EFSC127410MM	EFSC-127-4-10MM	.394	3/8	#10-32	4-POINT
EFSC12710	EFSC-127-10	9/16	3/8	#10-32	FINE
EFSC1304	EFSC-130-4	9/16	3/8	#10-32	STRAIGHT
EFSC130210MM	EFSC-130-2-10MM	.394	3/8	#10-32	STRAIGHT
EFSC1455	EFSC-145-5	9/16	3/8	#10-32	STRAIGHT



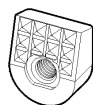
EFSC-127-4 SHOWN



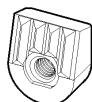
4 POINT



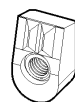
4 POINT
10 MM



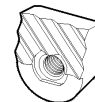
10 POINT



4 POINT
STRAIGHT



2 POINT
10 MM
STRAIGHT



5 POINT
ANGULAR

CAD Directory

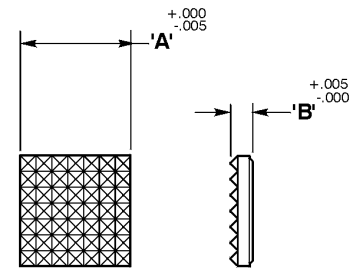
Mach-Tool\Grippers

Note: The shortest standard components is given, you may "stretch" the unit to the desired length.

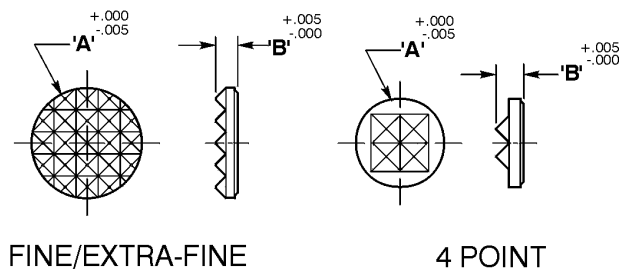
Solid Carbide Pads



ECS-SQUARE				
CAD FILE NAME	PART NUMBER	A	B	TOOTH PATTERN
ECS3	ECS-3*	3/8	1/8	FINE/EX-FINE
ECS4	ECS-4*	1/2	1/8	FINE/EX-FINE
ECS5EF	ECS-5EF	5/8	1/8	EX-FINE
ECS6EF	ECS-6EF	3/4	5/32	EX-FINE
ECS8EF	ECS-8EF	1	5/32	EX-FINE
ECC-ROUND				
CAD FILE NAME	PART NUMBER	A DIA	B	TOOTH PATTERN
ECC1	ECC-1	3/8	1/8	EX-FINE
ECC2	ECC-2*	5/16	1/8	FINE/EX-FINE
ECC24	ECC-2-4	5/16	1/8	4-POINT
ECC3	ECC-3*	3/8	1/8	FINE/EX-FINE
ECC34	ECC-3-4	3/8	1/8	4-POINT
ECC437	ECC-437*	7/16	1/8	FINE/EX-FINE
ECC4374	ECC-437-4	7/16	5/32	4-POINT
ECC4	ECC-4*	1/2	1/8	FINE/EX-FINE
ECC44	ECC-4-4	1/2	5/32	4-POINT
ECC5	ECC-5*	5/8	1/8	FINE/EX-FINE
ECC6	ECC-6*	3/4	1/8	FINE/EX-FINE
ECC8EF	ECC-8EF	1	5/32	EX-FINE



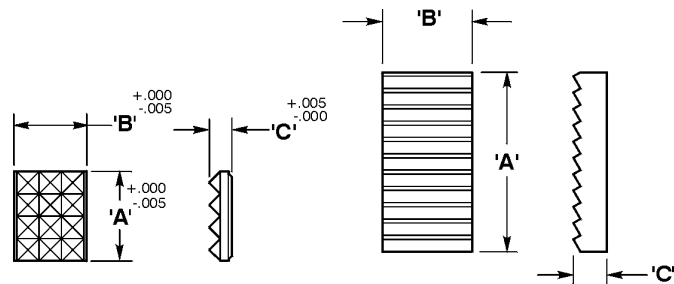
SQUARE



FINE/EXTRA-FINE

4 POINT

ECR-RECTANGULAR					
CAD FILE NAME	PART NUMBER	A	B	C	TOOTH PATTERN
ECR2EF	ECR-2EF	3/8	1/4	1/8	EX-FINE
ECR870	ECR-870*	1/2	13/32	1/8	FINE/EX-FINE
ECR1274	ECR-127-4	29/64	13/32	1/8	4-POINT
ECR12712	ECR-127-12	29/64	13/32	1/8	FINE
ECR1304	ECR-130-4	29/64	13/32	1/8	STRAIGHT
ECR1455	ECR-145-5	29/64	13/32	1/8	ANGULAR
ECR4EF	ECR-4EF	1	1/2	3/16	EX/FINE
ECR4	ECR-4	1	1/2	3/16	SAW TOOTH
ECR6	ECR-6	1 1/2	3/4	1/4	SAW TOOTH



SAW TOOTH
 ECR-4 & ECR-6
 ONLY

*Optional tooth patterns available, must add "SF" for Super-Fine or "EF" for Extra Fine to end of part number. Refer to page D-41.

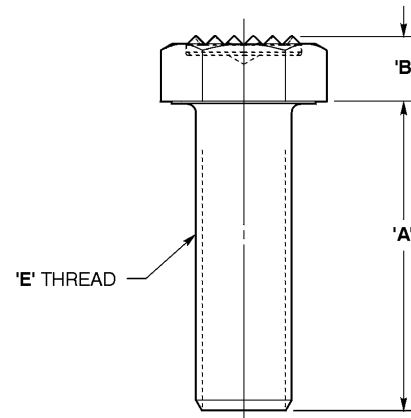
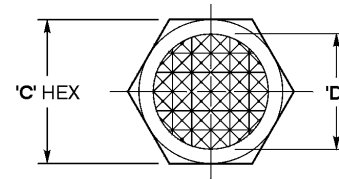
CAD Directory

Mach-Tool\Grippers

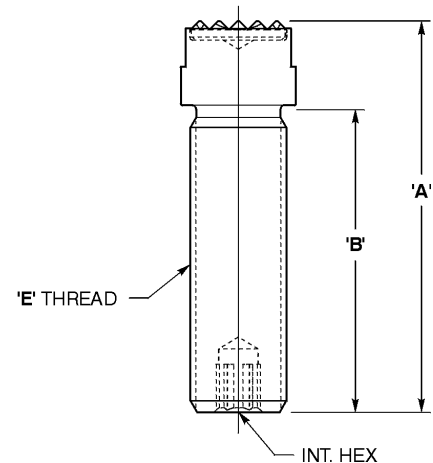
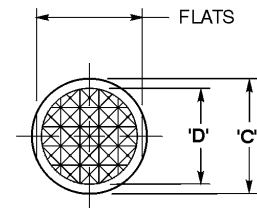
Note: The shortest standard components is given, you may "stretch" the unit to the desired length.

Grippers "ECTH" and "EAG" Adjustable

"ECTH" CARBIDE TIPPED ADJUSTABLE							
CAD FILE NAME	PART NUMBER	A	B	C HEX	D	E-THD.	TOOTH PATTERN
ECTH0200	ECTH-0200	1/2	13/64	7/16	5/16	1/4-20	EX-FINE
	ECTH-0250	1	13/64	7/16	5/16	1/4-20	EX-FINE
	ECTH-0250x1 1/2	1 1/2	13/64	7/16	5/16	1/4-20	EX-FINE
	ECTH-0280	1/2	13/64	7/16	5/16	1/4-28	EX-FINE
	ECTH-0281	1	13/64	7/16	5/16	1/4-28	EX-FINE
ECTH0310F	ECTH-0281x1 1/2	1 1/2	13/64	7/16	5/16	1/4-28	EX-FINE
	ECTH-0310*	1/2	1/4	1/2	3/8	5/16-18	FINE/EX-FINE
	ECTH-0312*	1	1/4	1/2	3/8	5/16-18	FINE/EX-FINE
	ECTH-0312x1 1/2*	1 1/2	1/4	1/2	3/8	5/16-18	FINE/EX-FINE
	ECTH-0320*	1/2	1/4	1/2	3/8	5/16-24	FINE/EX-FINE
ECTH0230F	ECTH-0321*	1	1/4	1/2	3/8	5/16-24	FINE/EX-FINE
	ECTH-0321x1 1/2*	1 1/2	1/4	1/2	3/8	5/16-24	FINE/EX-FINE
	ECTH-0230*	1/2	9/32	9/16	1/2	3/8-24	FINE/EX-FINE
	ECTH-0231*	1	9/32	9/16	1/2	3/8-24	FINE/EX-FINE
	ECTH-0231x1 1/2*	1 1/2	9/32	9/16	1/2	3/8-24	FINE/EX-FINE
ECTH0240F	ECTH-0370*	1/2	9/32	9/16	1/2	3/8-16	FINE/EX-FINE
	ECTH-0375*	1	9/32	9/16	1/2	3/8-16	FINE/EX-FINE
	ECTH-0375x1 1/2*	1 1/2	9/32	9/16	1/2	3/8-16	FINE/EX-FINE
	ECTH-0240*	1	23/64	3/4	5/8	1/2-20	FINE/EX-FINE
	ECTH-0500*	1 1/2	23/64	3/4	5/8	1/2-20	FINE/EX-FINE
ECTH0620F	ECTH-0510*	1	23/64	3/4	5/8	1/2-13	FINE/EX-FINE
	ECTH-0515*	1 1/2	23/64	3/4	5/8	1/2-13	FINE/EX-FINE
	ECTH-0620*	1	7/16	15/16	3/4	5/8-18	FINE/EX-FINE
	ECTH-0620x2	2	7/16	15/16	3/4	5/8-18	FINE/EX-FINE
	ECTH-0625*	1	7/16	15/16	3/4	5/8-11	1FINE/EX-FINE
ECTH0750EF	ECTH-0625x2*	2	7/16	15/16	3/4	5/8-11	FINE/EX-FINE
	ECTH-0750EF	1	1/2	1 1/8	1	3/4-16	EX-FINE
	ECTH-0750x2 1/2 EF	2 1/2	1/2	1 1/8	1	3/4-16	EX-FINE
	ECTH-0755EF	1	1/2	1 1/8	1	3/4-10	EX-FINE
	ECTH-0755x2 1/2 EF	2 1/2	1/2	1 1/8	1	3/4-10	EX-FINE



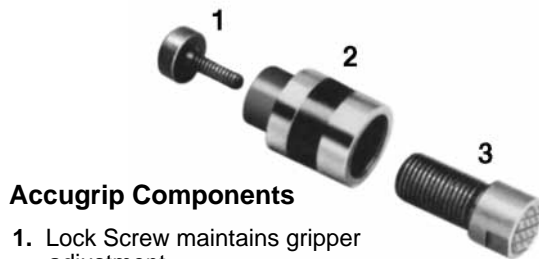
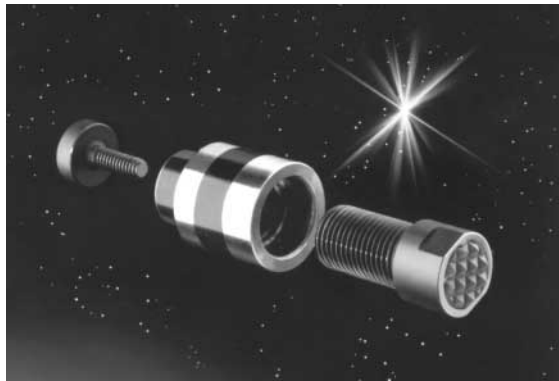
"EAG" CARBIDE TIPPED ADJUSTABLE									
CAD FILE NAME	PART NUMBER	A	B	C	D	E	INT HEX	TOOTH	PATTERN
EAG0230F	EAG-0230*	15/16	9/16	1/2	3/8	3/8-24	1/8	FINE/EX-FINE	
	EAG-0231*	1 3/8	1	1/2	3/8	3/8-24	1/8	FINE/EX-FINE	
	EAG-0231x1 1/2*	1 7/8	1 1/2	1/2	3/8	3/8-24	1/8	FINE/EX-FINE	
	EAG-0370*	15/16	9/16	1/2	3/8	3/8-16	1/8	FINE/EX-FINE	
	EAG-0375*	1 3/8	1	1/2	3/8	3/8-16	1/8	FINE/EX-FINE	
	EAG-0375x1 1/2*	1 7/8	1 1/2	1/2	3/8	3/8-16	1/8	FINE/EX-FINE	
EAG0240F	EAG-0240*	1 3/8	7/8	5/8	1/2	1/2-20	3/16	FINE/EX-FINE	
	EAG-0500*	2 1/16	1 1/2	5/8	1/2	1/2-20	3/16	FINE/EX-FINE	
	EAG-0510*	1 3/8	7/8	5/8	1/2	1/2-13	3/16	FINE/EX-FINE	
	EAG-0515*	2 1/16	1 1/2	5/8	1/2	1/2-13	3/16	FINE/EX-FINE	
EAG06201F	EAG-0620x1*	1 9/16	1	3/4	5/8	5/8-18	1/4	FINE/EX-FINE	
	EAG-0620x2*	2 9/16	2	3/4	5/8	5/8-18	1/4	FINE/EX-FINE	
	EAG-0625x1*	1 9/16	1	3/4	5/8	5/8-11	1/4	FINE/EX-FINE	
EAG07501F	EAG-0625x2*	2 9/16	2	3/4	5/8	5/8-11	1/4	FINE/EX-FINE	
	EAG-0750x1*	1 9/16	1	7/8	3/4	3/4-16	5/16	FINE/EX-FINE	
	EAG-0750x2 1/2*	3 1/6	2 1/2	7/8	3/4	3/4-16	5/16	FINE/EX-FINE	
	EAG-0755x1*	1 9/16	1	7/8	3/4	3/4-10	5/16	FINE/EX-FINE	
	EAG-0755x2 1/2*	2 1/2	3 1/6	7/8	3/4	3/4-10	5/16	FINE/EX-FINE	



* Optional tooth patterns available, specify "EF" for Extra-Fine. Fine tooth pattern will be shipped unless otherwise noted.

Grippers "EACG" Accugrip

E&E SPECIAL PRODUCTS
 7200 MILLER DRIVE
 WARREN, MI 48092
 586-978-3377 / 586-978-3378 FAX



Accugrip Components

1. Lock Screw maintains gripper adjustment.
2. Housing mounts flush in chuck jaw against a permanent shoulder.
3. Replaceable, Adjustable Gripper.

Accugrip advances your workholding capabilities. It easily adapts to rest pads, swivel clamps, hob drivers, and chucking clamp points. Accugrip reduces downtime, lowers maintenance costs, and eliminates the need for circle grinding.

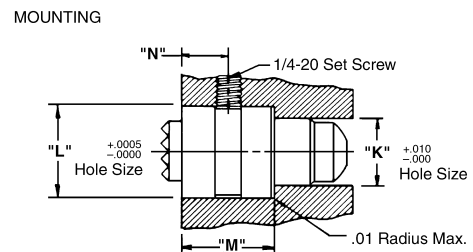
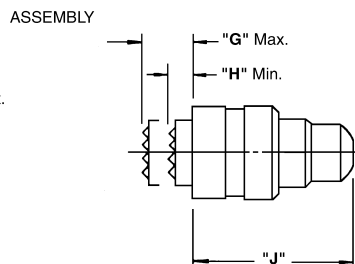
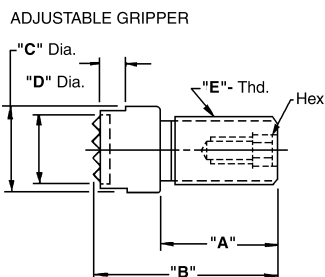


The Accugrip system uses a replaceable Adjustable Gripper and locking screw for precise and positive chuck gripping. It compensates for worn out chucks. For quick changeovers, have a pre-set backup unit ready for immediate replacement.

Complete Accugrip Assembly – replaceable Adjustable Grippers available with flat or serrated tips.

	COMPLETE ASSEMBLY	ADJUSTABLE GRIPPER	HOUSING	LOCK SCREW
CAD FILE NAME	PART NUMBER	PART NUMBER	PART NUMBER	PART NUMBER
EAG230S	EACG-0230-S 3/8* THD.SERR. TIP	EACG-0230-1S 3/8* THD.SERR. TIP	EACG-0230-2	EACG-0230-3
EAG230F	EACG-0230-F 3/8* THD.SMTH. TIP	EACG-0230-1F 3/8* THD.SMTH. TIP		
EAG240S	EACG-0240-S 1/2* THD.SERR. TIP	EACG-0240-1S 1/2* THD.SERR. TIP	EACG-0240-2	EACG-0240-3
EAG240F	EACG-0240-F 1/2* THD.SMTH. TIP	EACG-0240-1F 1/2* THD.SMTH. TIP		

PART NUMBER	ADJUSTABLE GRIPPER									MOUNTING			
	A	B	C	D	E-THD.	F	G MAX.	H MIN.	J	K	L	M	N
EACG-0230-S	17/32	15/16	.499	3/8	3/8-24	5/32	9/32	5/32	1	1/2	.625	11/16	13/32
EACG-0240-S	7/8	1-3/8	.624	1/2	1/2-20	1/4	5/16	3/16	1-9/16	21/32	.875	7/8	7/16



Specials quoted on request

CAD Directory
 Mach-Tool\Grippers

Grippers "EPG" Adjustable

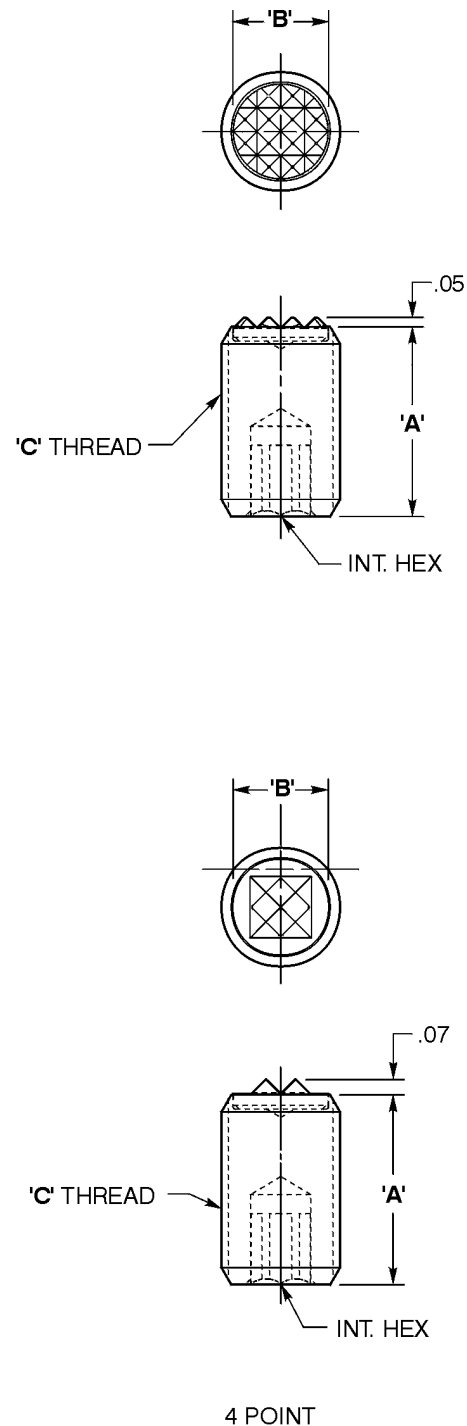
"EPG" CARBIDE TIPPED ADJUSTABLE						
CAD FILE NAME	PART NUMBER	A	B	C	INT HEX	TOOTH PATTERN
EPG0230	EPG-0230	1/2	1/4	3/8-24	3/16	EX-FINE
	EPG-0231	1	1/4	3/8-24	3/16	EX-FINE
	EPG-0231x1½	1 1/2	1/4	3/8-24	3/16	EX-FINE
	EPG-0231x2	2	1/4	3/8-24	3/16	EX-FINE
	EPG-0231x3	3	1/4	3/8-24	3/16	EX-FINE
	EPG-0370	1/2	1/4	3/8-16	3/16	EX-FINE
	EPG-0375	1	1/4	3/8-16	3/16	EX-FINE
	EPG-0375x2	2	1/4	3/8-16	3/16	EX-FINE
EPG-0375x3	3	1/4	3/8-16	3/16	EX-FINE	
EPG0503	EPG-0503*	3/4	3/8	1/2-20	1/4	FINE/EX-FINE
EPG05034	EPG-0503-4	3/4	3/8	1/2-20	1/4	4-POINT
EPG0503	EPG-0500*	1	3/8	1/2-20	1/4	FINE/EX-FINE
EPG05034	EPG-500-4	1	3/8	1/2-20	1/4	4-POINT
EPG0503	EPG-0500x2*	2	3/8	1/2-20	1/4	FINE/EX-FINE
EPG05034	EPG-0500x2-4	2	3/8	1/2-20	1/4	4-POINT
EPG0503	EPG-0500x3*	3	3/8	1/2-20	1/4	FINE/EX-FINE
EPG05034	EPG-0500x3-4	3	3/8	1/2-20	1/4	4-POINT
EPG0503	EPG-0510*	1	3/8	1/2-13	1/4	FINE/EX-FINE
EPG05034	EPG-0510-4	1	3/8	1/2-13	1/4	4-POINT
EPG0503	EPG-0510x2*	2	3/8	1/2-13	1/4	FINE/EX-FINE
EPG05034	EPG-0510x2-4	2	3/8	1/2-13	1/4	4-POINT
EPG0503	EPG-0510x3*	3	3/8	1/2-13	1/4	FINE/EX-FINE
EPG05034	EPG-0510-3-4	3	3/8	1/2-13	1/4	4-POINT
EPG0503	EPG-0513*	3/4	3/8	1/2-13	1/4	FINE/EX-FINE
EPG05034	EPG-0513-4	3/4	3/8	1/2-13	1/4	4-POINT
EPG0620F	EPG-0620*	1	1/2	5/8-18	5/16	FINE/EX-FINE
EPG06204	EPG-0620-4	1	1/2	5/8-18	5/16	4-POINT
EPG0620F	EPG-0620x1¼*	1 3/4	1/2	5/8-18	5/16	FINE/EX-FINE
EPG06204	EPG-0620x1¼-4	1 3/4	1/2	5/8-18	5/16	4-POINT
EPG0620F	EPG-0620x2*	2	1/2	5/8-18	5/16	FINE/EX-FINE
EPG06204	EPG-0620x2-4	2	1/2	5/8-18	5/16	4-POINT
EPG0620F	EPG-0620x3*	3	1/2	5/8-18	5/16	FINE/EX-FINE
EPG06204	EPG-0620x3-4	3	1/2	5/8-18	5/16	4-POINT
EPG0620F	EPG-0625*	1	7/16	5/8-11	5/16	FINE/EX-FINE
EPG06204	EPG-0625-4	1	7/16	5/8-11	5/16	4-POINT
EPG0620F	EPG-0625x2*	2	7/16	5/8-11	5/16	FINE/EX-FINE
EPG06204	EPG-0625x2-4	2	7/16	5/8-11	5/16	4-POINT
EPG0620F	EPG-0625x3*	2	7/16	5/8-11	5/16	FINE/EX-FINE
EPG06204	EPG-0625x3-4	3	7/16	5/8-11	5/16	4-POINT
EPG0750F	EPG-0750*	1	1/2	3/4-16	3/8	FINE/EX-FINE
EPG07504	EPG-0750-4	1	1/2	3/4-16	3/8	4-POINT
EPG0750F	EPG-0750x2*	2	1/2	3/4-16	3/8	FINE/EX-FINE
EPG07504	EPG-0750x2-4	2	1/2	3/4-16	3/8	4-POINT
EPG0750F	EPG-0750x3*	3	1/2	3/4-16	3/8	FINE/EX-FINE
EPG07504	EPG-0750x3-4	3	1/2	3/4-16	3/8	4-POINT
EPG0750F	EPG-0755*	1	1/2	3/4-16	3/8	FINE/EX-FINE
EPG07504	EPG-0755-4	1	1/2	3/4-10	3/8	4-POINT
EPG0750F	EPG-0755x2*	2	1/2	3/4-10	3/8	FINE/EX-FINE
EPG07504	EPG-0755x2-4	2	1/2	3/4-10	3/8	4-POINT
EPG0750F	EPG-0755x3*	3	1/2	3/4-10	3/8	FINE/EX-FINE
EPG07504	EPG-0755x3-4	3	1/2	3/4-10	3/8	4-POINT

*Optional tooth patterns available, specify "EF" for Extra-Fine. Fine tooth pattern will be shipped unless otherwise noted.

CAD Directory

Mach-Tool/Grippers

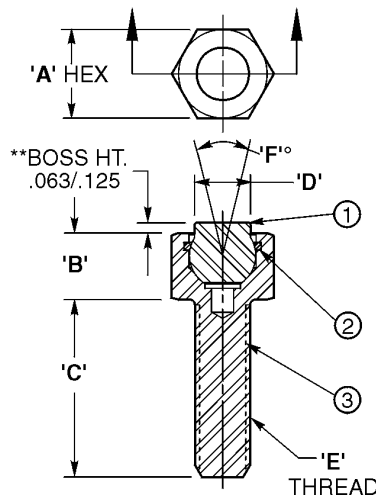
Note: The shortest standard components is given, you may "stretch" the unit to the desired length.



Swivots-Hex Head Adjustable



E&E SPECIAL PRODUCTS
 7200 MILLER DRIVE
 WARREN, MI 48092
E&ESP 586-978-3377 / 586-978-3378 FAX



REPLACEBLE BALL STYLE HEX HEAD DESIGN													
		ASSEMBLIES						COMPONENTS					
CAD FILE NAME	PART NUMBER	A HEX	B HEAD	C THD LENGTH	D BOSS DIA	E THD	F DEGREE SWIVEL	BALL DIA	1 BALL	2 O-RING	3 HOUSING	AVAIL. TOOTH PATTERN	LOAD RATING
EBUH0124F or EUBUH0124S	EBUH-0124-(*)-**	3/8	1/4	1/2	5/32	#10-24	28°	3/16	EBUB-100-(*)-**	EBUR-100	EBUH-0124-H	SF	1176
	EBUH-0124x1-(*)-**	3/8	1/4	1	5/32	#10-24	28°	3/16	EBUB-100-(*)-**	EBUR-100	EBUH-0124-1-H	SF	1176
	EBUH-0132-(*)-**	3/8	1/4	1/2	5/32	#10-32	28°	3/16	EBUB-100-(*)-**	EBUR-100	EBUH-0132-H	SF	1176
	EBUH-0132x1-(*)-**	3/8	1/4	1	5/32	#10-32	28°	3/16	EBUB-100-(*)-**	EBUR-100	EBUH-0132-1-H	SF	1176
EBUH01250F or EUBUH0250S	EBUH-0250-(*)-**	7/16	5/16	1/2	1/4	1/4-20	24°	9/32	EBUB-200-(*)-**	EBUR-200	EBUH-0250-H	EF/SF	2441
	EBUH-0251-(*)-**	7/16	5/16	1	1/4	1/4-20	24°	9/32	EBUB-200-(*)-**	EBUR-200	EBUH-0251-H	EF/SF	2441
	EBUH-0251x1½-(*)-**	7/16	5/16	1 1/2	1/4	1/4-20	24°	9/32	EBUB-200-(*)-**	EBUR-200	EBUH-0251-1 ½-H	EF/SF	2441
	EBUH-0280-(*)-**	7/16	5/16	1/2	1/4	1/4-28	24°	9/32	EBUB-200-(*)-**	EBUR-200	EBUH-0280-H	EF/SF	2441
	EBUH-0281-(*)-**	7/16	5/16	1	1/4	1/4-28	24°	9/32	EBUB-200-(*)-**	EBUR-200	EBUH-0281-H	EF/SF	2441
	EBUH-0281x1½-(*)-**	7/16	5/16	1 1/2	1/4	1/4-28	24°	9/32	EBUB-200-(*)-**	EBUR-300	EBUH-0281-1 ½-H	EF/SF	2441
EBUH0313F or EUBUH0310S	EBUH-0310-(*)-**	1/2	3/8	1/2	5/16	5/16-28	32°	3/8	EBUB-300-(*)-**	EBUR-300	EBUH-0310-H	EF/SF	2792
	EBUH-0312-(*)-**	1/2	3/8	1	5/16	5/16-28	32°	3/8	EBUB-300-(*)-**	EBUR-300	EBUH-0312-H	EF/SF	2792
	EBUH-0312x1½-(*)-**	1/2	3/8	1 1/2	5/16	5/16-18	32°	3/8	EBUB-300-(*)-**	EBUR-300	EBUH-0312-1 ½-H	EF/SF	2792
	EBUH-0320-(*)-**	1/2	3/8	1/2	5/16	5/16-24	32°	3/8	EBUB-300-(*)-**	EBUR-300	EBUH-0320-H	EF/SF	2792
	EBUH-0321-(*)-**	1/2	3/8	1	5/16	5/16-24	32°	3/8	EBUB-300-(*)-**	EBUR-300	EBUH0321-H	EF/SF	2792
	EBUH-0321x1½-(*)-**	1/2	3/8	1 1/2	5/16	5/16-24	32°	3/8	EBUB-300-(*)-**	EBUR-300	EBUH-0321-1 ½-H	EF/SF	2792
EBUH0230F or EUBUH0230S	EBUH-0230-(*)-**	5/8	1/2	1/2	3/8	3/8-24	22°	1/2	EBUB-500-(*)-**	EBUR-500	EBUH-0230-H	EF/SF	3446
	EBUH-0231-(*)-**	5/8	1/2	1	3/8	3/8-24	22°	1/2	EBUB-500-(*)-**	EBUR-500	EBUH-0231-H	EF/SF	3446
	EBUH-0231x1½-(*)-**	5/8	1/2	1 1/2	3/8	3/8-24	22°	1/2	EBUB-500-(*)-**	EBUR-500	EBUH-0231-1 ½-H	EF/SF	3446
	EBUH-0370-(*)-**	5/8	1/2	1/2	3/8	3/8-16	22°	1/2	EBUB-500-(*)-**	EBUR-500	EBUH-0370-H	EF/SF	3446
	EBUH-0375-(*)-**	5/8	1/2	1	3/8	3/8-16	22°	1/2	EBUB-500-(*)-**	EBUR-500	EBUH-0375-H	EF/SF	3446
	EBUH-0375x1½-(*)-**	5/8	1/2	1 1/2	3/8	3/8-16	22°	1/2	EBUB-500-(*)-**	EBUR-500	EBUH-0375-1 ½-H	EF/SF	3446

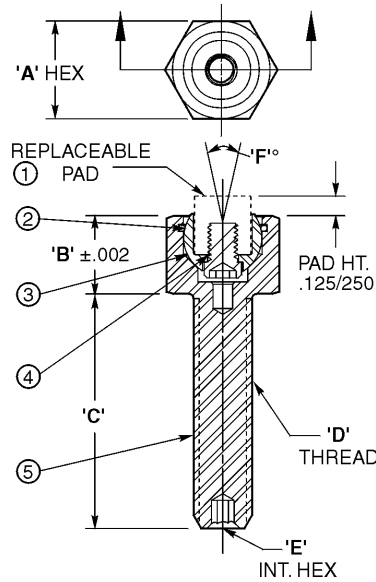
*MUST SPECIFY STYLE OR BALL BY INDICATING "S" FOR SERRATED, "SF" FOR SUPER FINE SERRATIONS, "F" FOR FLAT OR "D" FOR DELRIN AND OPTION IF REQUIRED.

**SPECIFY "T" FOR "TALL" HEIGHT OPTION. LEAVE BLANK FOR STANDARD HEIGHT.

CAD Directory
 Mach-Tool\Grippers

Note: The shortest standard components is given, you may "stretch" the unit to the desired length.

Swivots-Hex Head Adjustable



REPLACEABLE PAD STYLE HEX HEAD DESIGN														
		ASSEMBLIES							COMPONENTS					
CAD FILE NAME	PART NUMBER	A HEX	B HEAD HT	C THD LENGTH	D THD SIZE	E INT HEX	F DEGREE SWIVEL	BALL DIA	1" REPLACE PAD DIA	2 O-RING	3 BALL	4 LOCK SCREW	5 HOUSING	LOAD RATING
EBUH0230	EBUH-0230	5/8	1/2	1/2	3/8-24	1/8	22'	1/2	3/8	EBUR-500	EBUB-500	EBUS-500	EBUH-0230-H	3446
	EBUH-0231	5/8	1/2	1	3/8-24	1/8	22'	1/2	3/8	EBUR-500	EBUB-500	EBUS-500	EBUH-0231-H	3446
	EBUH-0231 x 1 1/2	5/8	1/2	1 1/2	3/8-24	1/8	22'	1/2	3/8	EBUR-500	EBUB-500	EBUS-500	EBUH-0231-1 1/2-H	3446
	EBUH-0370	5/8	1/2	1/2	3/8-16	1/8	22'	1/2	3/8	EBUR-500	EBUB-500	EBUS-500	EBUH-0370-H	3446
	EBUH-0375	5/8	1/2	1	3/8-16	1/8	22'	1/2	3/8	EBUR-500	EBUB-500	EBUS-500	EBUH-0375-H	3446
	EBUH-0375 x 1 1/2	5/8	1/2	1 1/2	3/8-16	1/8	22'	1/2	3/8	EBUR-500	EBUB-500	EBUS-500	EBUH-0375-1 1/2-H	3446
EBUH0240	EBUH-0240	13/16	5/8	1	1/2-20	3/16	24'	5/8	1/2	EBUR-600	EBUB-600	EBUS-600	EBUH-0240-H	7178
	EBUH-0500	13/16	5/8	1 1/2	1/2-20	3/16	24'	5/8	1/2	EBUR-600	EBUB-600	EBUS-600	EBUH-0500-H	7178
	EBUH-0510	13/16	5/8	1	1/2-13	3/16	24'	5/8	1/2	EBUR-600	EBUB-600	EBUS-600	EBUH-0510-H	5937
	EBUH-0515	13/16	5/8	1 1/2	1/2-13	3/16	24'	5/8	1/2	EBUR-600	EBUB-600	EBUS-600	EBUH-0515-H	5937
EBUH0620	EBUH-0620	15/16	11/16	1	5/8-18	1/4	22'	3/4	5/8	EBUR-700	EBUB-700	EBUS-700	EBUH-0620-H	11874
	EBUH-0620 x 2	15/16	11/16	2	5/8-18	1/4	22'	3/4	5/8	EBUR-700	EBUB-700	EBUS-700	EBUH-0620-2-H	11874
	EBUH-0625	15/16	11/16	1	5/8-11	1/4	22'	3/4	5/8	EBUR-700	EBUB-700	EBUS-700	EBUH-0625-H	9932
	EBUH-0625 x 2	15/16	11/16	2	5/8-11	1/4	22'	3/4	5/8	EBUR-700	EBUB-700	EBUS-700	EBUH-0625-2-H	9932
EBUH0750	EBUH-0750	1 1/8	3/4	1	3/4-16	5/16	20'	7/8	3/4	EBUR-800	EBUB-800	EBUS-800	EBUH-0750-H	13565
	EBUH-0750 x 2 1/2	1 1/8	3/4	2 1/2	3/4-16	5/16	20'	7/8	3/4	EBUR-800	EBUB-800	EBUS-800	EBUH-0750-2 1/2-H	13565
	EBUH-0755	1 1/8	3/4	1	3/4-10	5/16	20'	7/8	3/4	EBUR-800	EBUB-800	EBUS-800	EBUH-0755-H	14862
	EBUH-0755 x 2 1/2	1 1/8	3/4	2 1/2	3/4-10	5/16	20'	7/8	3/4	EBUR-800	EBUB-800	EBUS-800	EBUH-0755-2 1/2-H	14862
EBUH11142	EBUH-1114 x 2	1 1/2	7/8	2	1-14	3/8	22'	1 1/8	1	EBUR-1100	EBUB-1100	EBUS-1100	EBUH-1114-2-H	26234
	EBUH-1114 x 4	1 1/2	7/8	4	1-14	3/8	22'	1 1/8	1	EBUR-1100	EBUB-1100	EBUS-1100	EBUH-1114-4-H	26234
	EBUH-1108 x 2	1 1/2	7/8	2	1-8	3/8	22'	1 1/8	1	EBUR-1100	EBUB-1100	EBUS-1100	EBUH-1108-2-H	28158
	EBUH-1108 x 4	1 1/2	7/8	4	1-8	3/8	22'	1 1/8	1	EBUR-1100	EBUB-1100	EBUS-1100	EBUH-1108-4-H	28158

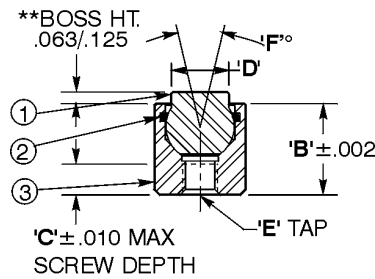
*MUST PURCHASE REPLACEABLE PAD SEPARATELY (REFER TO PAGE D-42, D-45, D-46 OR D-55).

CAD Directory

Mach-Tool\Grippers

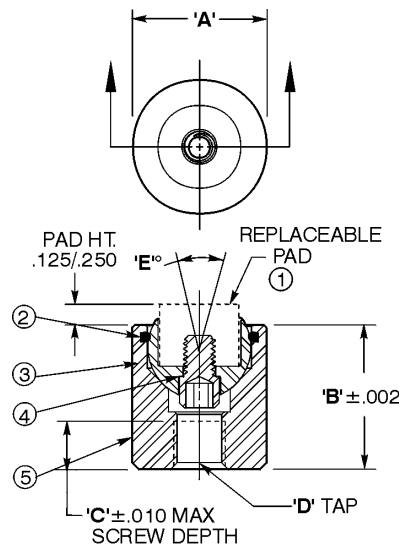
Note: The shortest standard components is given, you may "stretch" the unit to the desired length.

Swivots-Base Design



REPLACEABLE BALL STYLE													
ASSEMBLIES									COMPONENTS				
CAD FILE NAME	PART NUMBER	A DIA	B HEIGHT	C	D BOSS DIA	E TAP	F DEGREE SWIVEL	BALL DIA	1 BALL	2 O-RING	3 HOUSING	AVAIL TOOTH PATTERN	LOADHO RATING
EBBU100F or EBBU100S	EBBU-100-(*)-**	3/8	5/16	1/4	5/32	#4-40	28'	3/16	EBUB-100-(*)-**	EBBR-100	EBBU-100-H	SF	1835
	EBBU-105-(*)-**	3/8	7/16	5/16	5/32	#4-40	28'	3/16	EBUB-100-(*)-**	EBBR-100	EBBU-105-H	SF	1835
	EBBU-107-(*)-**	3/8	11/16	5/16	5/32	#4-40	28'	3/16	EBUB-100-(*)-**	EBBR-100	EBBU-107-H	SF	1835
EBBU200F or EBBU200S	EBBU-200-(*)-**	7/16	3/8	5/32	1/4	#8-32	28'	9/32	EBUB-200-(*)-**	EBBR-200	EBBU-200-H	EF/SF	3339
	EBBU-201-(*)-**	7/16	15/16	1/2	1/4	#8-32	28'	9/32	EBUB-201-(*)-**	EBBR-200	EBBU-201-H	EF/SF	3339
EBBU300F or EBBU300S	EBBU-300-(*)-**	1/2	1/2	5/32	5/16	#10-32	28'	3/8	EBUB-300-(*)-**	EBBR-300	EBBU-300-H	EF/SF	4697
	EBBU-301-(*)-**	1/2	1	5/8	5/16	#10-32	28'	3/8	EBUB-300-(*)-**	EBBR-300	EBBU-301-H	EF/SF	4697
EBBU500F or EBBU500S	EBBU-500-(*)-**	5/8	3/4	1/4	1/2	1/4-28	22'	1/2	EBUB-500-(*)-**	EBBR-500	EBBU-500-H	EF/SF	5849

*MUST SPECIFY STYLE OF BALL BY INDICATING "S" FOR SERRATED, "SF" FOR SUPER FINE SERRATIONS, "F" FOR FLAT OF "D" FOR DELRIN.
 **SPECIFY "T" FOR "TALL" HEIGHT OPTIONS. LEAVE BLANK FOR STANDARD HEIGHT.



REPLACEABLE PAD STYLE													
ASSEMBLIES								COMPONENTS					
CAD FILE NAME	PART NUMBER	A DIA	B HEIGHT	C	D TAP	E DEGREE SWIVEL	F BALL DIA	1* REPLACE PAD DIA	2 O-RING	3 BALL	4 LOCK SCREW	5 HOUSING	LOAD RATING
EBBU500	EBBU-500	5/8	3/4	.24	1/4-28	22'	1/2	3/8	EBUR-500	EBUB-500	EBUS-500	EBBU-500-H	5849
EBBU600	EBBU-600	13/16	7/8	.35	5/16-24	24'	5/8	1/2	EBUR-600	EBUB-600	EBUS-600	EBBU-600-H	10925
EBBU700	EBBU-700	15/16	7/8	.28	3/8-24	22'	3/4	5/8	EBUR-700	EBUB-700	EBUS-700	EBBU-700-H	13325
EBBU800	EBBU-800	1 1/8	15/16	.24	1/2-20	26'	7/8	3/4	EBUR-800	EBUB-800	EBUS-700	EBBU-800-H	18863
EBBU1100	EBBU-1100	1 1/2	1 1/4	.44	1/2-20	22'	1 1/8	1	EBUR-1100	EBUB-1100	EBUS-1100	EBBU-1100-H	34614

*MUST PURCHASE REPLACEABLE PAD SEPARATELY (REFER TO PAGE D-42, D-45, D-46, D-55).

CAD Directory

Mach-Tool\Grippers

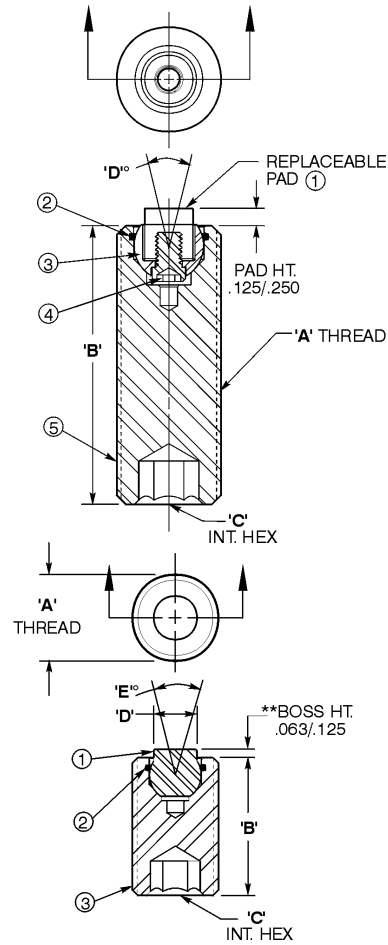
Note: The shortest standard components is given, you may "stretch" the unit to the desired length.

Swivots-Threaded Designs

REPLACEABLE PAD STYLE						
ASSEMBLIES						
CAD FILE NAME	PART NUMBER	A THREAD	B LENGTH	C INT HEX	D DEGREE SWIVEL	BALL DIA
ETBU0750	EBU-0750	3/4-16	1	3/8	22°	1/2
	EBU-0750x2	3/4-16	2	3/8	22°	1/2
	EBU-0750x3	3/4-16	3	3/8	22°	1/2
	EBU-0755	3/4-10	1	3/8	22°	1/2
	EBU-0755x2	3/4-10	2	3/8	22°	1/2
	EBU-0755x3	3/4-10	3	3/8	22°	1/2

COMPONENTS					
1" REPLACE PAD DIA	2 O-RING	3 BSLL	4 LOCK SCREW	5 HOUSING	LOAD RATING
3/8	EBUR-500	EBUB-500	EBUS-500	ETBU-0750-H	8150
3/8	EBUR-500	EBUB-500	EBUS-500	ETBU-0750x2-H	8150
3/8	EBUR-500	EBUB-500	EBUS-500	ETBU-0750x2-H	8150
3/8	EBUR-500	EBUB-500	EBUS-500	ETBU-0755-H	8150
3/8	EBUR-500	EBUB-500	EBUS-500	ETBU-0755x2-H	8150
3/8	EBUR-500	EBUB-500	EBUS-500	ETBU-0755x3-H	8150
5/8	EBUR-700	EBUB-700	EBUS-700	ETBU-1114x2-H	17210
5/8	EBUR-700	EBUB-700	EBUS-700	ETBU-1114x3-H	17210
1/2	EBUR-600	EBUB-600	EBUS-600	ETBU-1108x2-H	14757
1/2	EBUR-600	EBUB-600	EBUS-600	ETBU-1108x3-H	14757

*MUST PURCHASE REPLACEABLE PAD SEPARATELY (REFER TO PAGE D-42, D-45, D-46 OR D-55).



REPLACEABLE BALL STYLE												
ASSEMBLIES							COMPONENTS					
CAD FILE NAME	PART NUMBER	A THREAD	B LENGTH	C INT HEX	D BOSS DIA.	E DEGREE SWIVEL	BALL DIA	1 BALL	2 O-RING	3 HOUSING	AVAIL TOOTH PATTERN	LOAD RATING
ETBU0230F or ETBU0230S	ETBU-0230-(*)-**	3/8-24	1/2	3/16	5/32	28°	3/16	EBUB-100-(*)-**	EBUR-100	ETBU-0230-H	SF	1763
	ETBU-0231-(*)-**	3/8-24	1	3/16	5/32	28°	3/16	EBUB-100-(*)-**	EBUR-100	ETBU-0231-H	SF	1763
	ETBU-0231x2-(*)-**	3/8-24	2	3/16	5/32	28°	3/16	EBUB-100-(*)-**	EBUR-100	ETBU-0231x2-H	SF	1763
	ETBU-0231x3-(*)-**	3/8-24	3	3/16	5/32	28°	3/16	EBUB-100-(*)-**	EBUR-100	ETBU-0231x3-H	SF	1763
	ETBU-0370-(*)-**	3/8-16	1/2	3/16	5/32	28°	3/16	EBUB-100-(*)-**	EBUR-100	ETBU-0370-H	SF	1763
	ETBU-0375-(*)-**	3/8-16	1	3/16	5/32	28°	3/16	EBUB-100-(*)-**	EBUR-100	ETBU-0375-H	SF	1763
	ETBU-0375x2-(*)-**	3/8-16	2	3/16	5/32	28°	3/16	EBUB-100-(*)-**	EBUR-100	ETBU-0375x2-H	SF	1763
ETBU-0375x3-(*)-**	3/8-16	3	3/16	5/32	28°	3/16	EBUB-100-(*)-**	EBUR-100	ETBU-0375x3-H	SF	1763	
ETBU0503F or ETBU0503S	ETBU-0503-(*)-**	1/2-20	3/4	1/4	1/4	26°	9/32	EBUB-200-(*)-**	EBUR-200	ETBU-0503-H	EF/SF	4527
	ETBU-0500-(*)-**	1/2-20	1	1/4	1/4	26°	9/32	EBUB-200-(*)-**	EBUR-200	ETBU-0500-H	EF/SF	4527
	ETBU-0500-x2-(*)-**	1/2-20	2	1/4	1/4	26°	9/32	EBUB-200-(*)-**	EBUR-200	ETBU-0500x2-H	EF/SF	4527
	ETBU-0500-x3-(*)-**	1/2-20	3	1/4	1/4	26°	9/32	EBUB-200-(*)-**	EBUR-200	ETBU-0500x3-H	EF/SF	4527
	ETBU-0513-(*)-**	1/2-13	3/4	1/4	1/4	26°	9/32	EBUB-200-(*)-**	EBUR-200	ETBU-0513-H	EF/SF	4527
	ETBU-0510-(*)-**	1/2-13	1	1/4	1/4	26°	9/32	EBUB-200-(*)-**	EBUR-200	ETBU-0510-H	EF/SF	4527
	ETBU-0510-x2-(*)-**	1/2-13	2	1/4	1/4	26°	9/32	EBUB-200-(*)-**	EBUR-200	ETBU-0510x2-H	EF/SF	4527
ETBU-0510-x3-(*)-**	1/2-13	3	1/4	1/4	26°	9/32	EBUB-200-(*)-**	EBUR-200	ETBU-0510x3-H	EF/SF	4527	
ETBU0620F or ETBU0620S	ETBU-0620-(*)-**	5/8-18	1	5/16	5/16	28°	3/8	EBUB-300-(*)-**	EBUR-300	ETBU-0620-H	EF/SF	6131
	ETBU-0620-x2-(*)-**	5/8-18	2	5/16	5/16	28°	3/8	EBUB-300-(*)-**	EBUR-300	ETBU-0620x2-H	EF/SF	6131
	ETBU-0620-x3-(*)-**	5/8-18	3	5/16	5/16	28°	3/8	EBUB-300-(*)-**	EBUR-300	ETBU-0620x3-H	EF/SF	6131
	ETBU-0625-(*)-**	5/8-11	1	5/16	5/16	28°	3/8	EBUB-300-(*)-**	EBUR-300	ETBU-0625-H	EF/SF	6131
	ETBU-0625-x2-(*)-**	5/8-11	2	5/16	5/16	28°	3/8	EBUB-300-(*)-**	EBUR-300	ETBU-0625x2-H	EF/SF	6131
	ETBU-0625-x3-(*)-**	5/8-11	3	5/16	5/16	28°	3/8	EBUB-300-(*)-**	EBUR-300	ETBU-0625x3-H	EF/SF	6131
ETBU0750F or ETBU0750S	ETBU-0750-(*)-**	3/4-16	1	3/8	3/8	22°	1/2	EBUB-500-(*)-**	EBUR-500	ETBU-0750-H	EF/SF	8150
	ETBU-0750x2-(*)-**	3/4-16	2	3/8	3/8	22°	1/2	EBUB-500-(*)-**	EBUR-500	ETBU-0750x2-H	EF/SF	8150
	ETBU-0750x3-(*)-**	3/4-16	3	3/8	3/8	22°	1/2	EBUB-500-(*)-**	EBUR-500	ETBU-0750x3-H	EF/SF	8150
	ETBU-0755-(*)-**	3/4-10	1	3/8	3/8	22°	1/2	EBUB-500-(*)-**	EBUR-500	ETBU-0755-H	EF/SF	8150
	ETBU-0755x2-(*)-**	3/4-10	2	3/8	3/8	22°	1/2	EBUB-500-(*)-**	EBUR-500	ETBU-0755x2-H	EF/SF	8150
	ETBU-0755x3-(*)-**	3/4-10	3	3/8	3/8	22°	1/2	EBUB-500-(*)-**	EBUR-500	ETBU-0755x3-H	EF/SF	8150

(*)Must specify style of ball for assemblies or replacement balls by indicating "S" for Serrated, "SF" for Super Fine Serrations, "F" for Flat or "D" for Delrin.

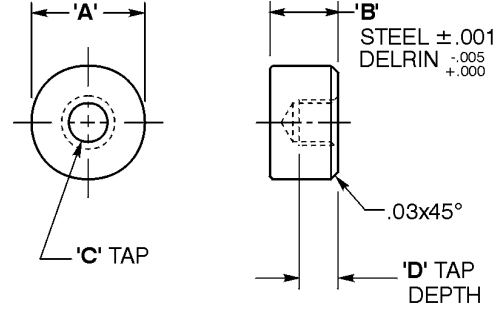
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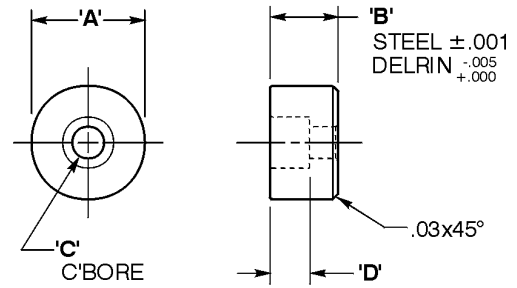
Note: The shortest standard components is given, you may "stretch" the unit to the desired length.

Rest Pads

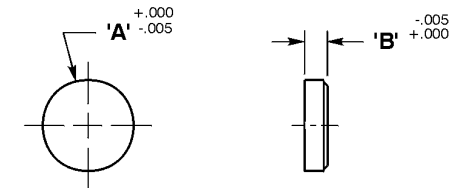
"ESRP" & "EDRP"-STEEL/DELIN-TAPPED						
CAD FILE NAME	STEEL PART NO.	DELIN PART NO.	A DIA	B	C TAP	D TAP DEPTH
ESRP30	ESRP-30	EDRP-30	5/16	3/8	#8-32	3/16
	ESRP-305	EDRP-305	5/16	1/2	#8-32	5/16
ESRP40	ESRP-40	EDRP-40	3/8	3/8	#10-32	3/16
	ESRP-405	EDRP-405	3/8	1/2	#10-32	5/16
ESRP50	ESRP-50	EDRP-50	1/2	3/8	#10-32	3/16
	ESRP-53	EDRP-53	1/2	1/2	#10-32	5/16
ESRP62	ESRP-62	EDRP-62	5/8	3/8	1/4-28	3/16
	ESRP-625	EDRP-625	5/8	1/2	1/4-28	5/16
ESRP75	ESRP-75	EDRP-75	3/4	3/8	1/4-28	3/16
	ESRP-755	EDRP-755	3/4	1/2	1/4-28	5/16
ESRP81	ESRP-81	EDRP-81	1	3/8	1/4-28	3/16
	ESRP-815	EDRP-815	1	1/2	1/4-28	5/16



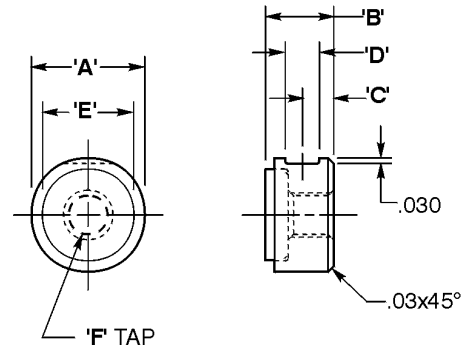
"ESRP" & "EDRP"-STEEL/DELIN-C'BORE						
CAD FILE NAME	STEEL PART NO.	DELIN PART NO.	A DIA	B	C C'BORE FOR	D C'BORE DEPTH
ESRP40C	ESRP-40-C	EDRP-40-C	3/8	3/8	#6 SHCS	3/16
	ESRP-405-C	EDRP-405-C	3/8	1/2	#6 SHCS	3/16
ESRP50C	ESRP-50-C	EDRP-50-C	1/2	3/8	#8 SHCS	7/32
	ESRP-53-C	EDRP-53-C	1/2	1/2	#8 SHCS	7/32
ESRP62C	ESRP-62-C	EDRP-62-C	5/8	3/8	#8 SHCS	7/32
	ESRP-625-C	EDRP-625-C	5/8	1/2	#8 SHCS	7/32
ESRP75C	ESRP-75-C	EDRP-75-C	3/4	3/8	#10 SHCS	1/4
	ESRP-755-C	EDRP-755-C	3/4	1/2	#10 SHCS	1/4
ESRP81C	ESRP-81-C	EDRP-81-C	1	3/8	1/4 SHCS	9/32
	ESRP-815-C	EDRP-815-C	1	1/2	1/4 SHCS	9/32



"ECC"-CARBIDE PADS			
CAD FILE NAME	PART NUMBER	A DIA	B
ECC1F	ECC-1F	1/4	1/8
ECC2F	ECC-2F	5/16	1/8
ECC3F	ECC-3F	3/8	1/8
ECC4F	ECC-4F	1/2	1/8
ECC5F	ECC-5F	5/8	1/8
ECC6F	ECC-6F	3/4	1/8



"ECRP"-CARBIDE TIPPED PADS							
CAD FILE NAME	PART NUMBER	A DIA	B	C	D	E	F TAP
ECRP40	ECRP-40	3/8	3/8	11/64	3/16	5/16	#10-32
ECRP405	ECRP-405	3/8	1/2	15/64	3/16	5/16	#10-32
ECRP50	ECRP-50	1/2	3/8	11/64	3/16	3/8	#10-32
ECRP53	ECRP-53	1/2	1/2	15/64	3/16	3/8	#10-32
ECRP62	ECRP-62	5/8	3/8	11/64	3/16	1/2	1/4-28
ECRP625	ECRP-625	5/8	1/2	15/64	3/16	1/2	1/4-28
ECRP75	ECRP-75	3/4	3/8	11/64	3/16	5/8	1/4-28
ECRP755	ECRP-755	3/4	1/2	15/64	3/16	5/8	1/4-28
ECRP81	ECRP-81	1	3/8	11/64	3/16	3/4	1/4-28



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Note: The shortest standard components is given, you may "stretch" the unit to the desired length.