



**HOWMET  
AEROSPACE**

## Eddie-Bolt<sup>®</sup> 2 fastener tools



# Eddie-Bolt® 2 fastener tools

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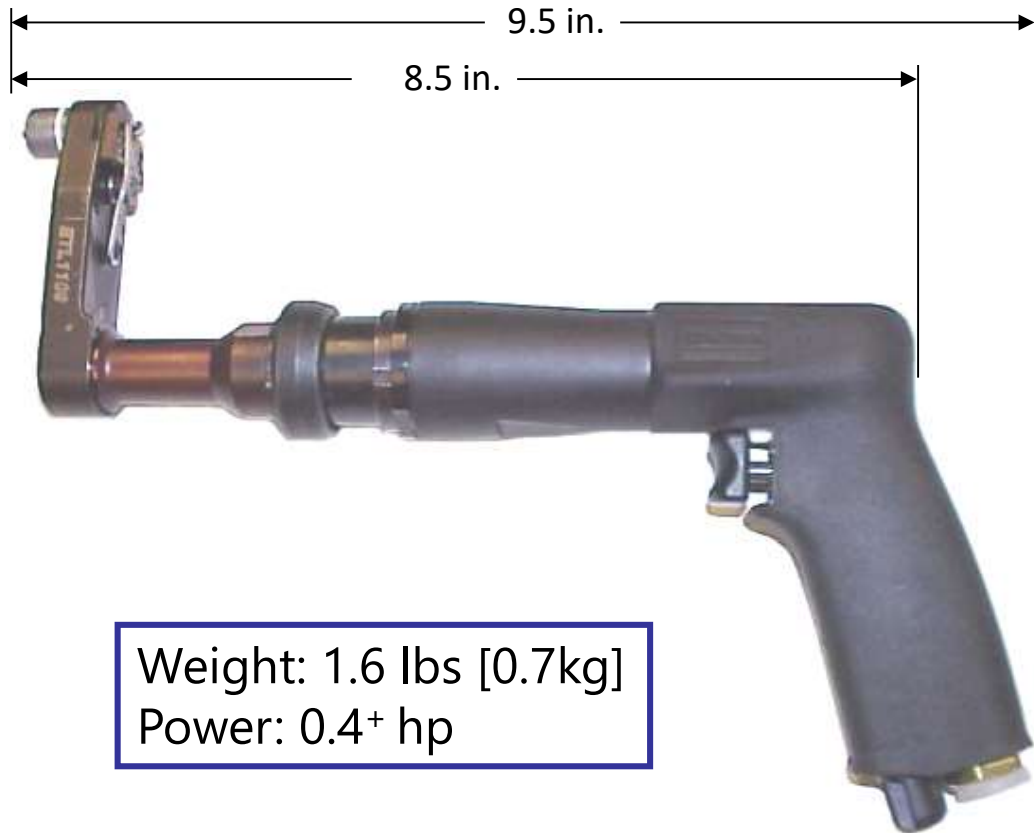
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## **SECTION 1**

# Power Installation Tools

# Offset Pistol Grip Tools

**Smallest Package, Increased Power !**

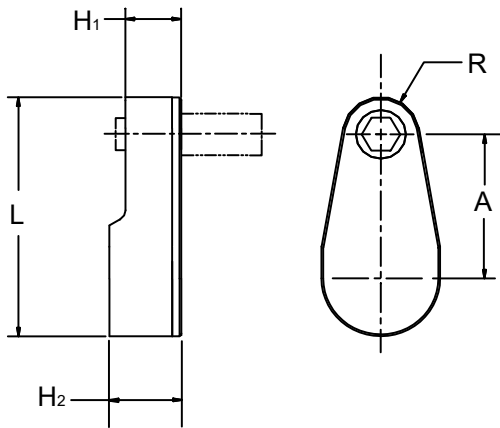


Example Shown Above: ETL1129C06D06SPK

Note: This is the new pistol grip motor available in the following tool models for all -5, -6 & -8 diameters:

- ETL1108
- ETL1129
- ETL1110
- ETL1111
- ETL2000

# Offset Pistol Grip Tools



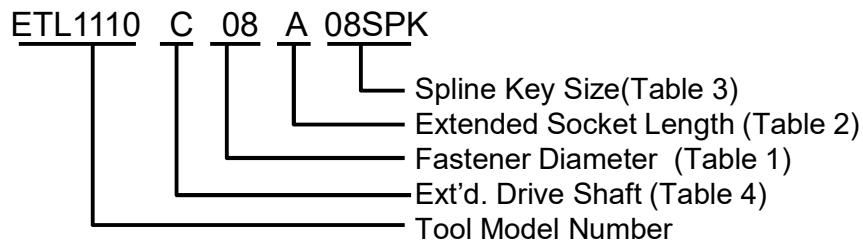
Model Number	No. of Gears	A	H <sub>1</sub>	H <sub>2</sub>	L	R
<b>ETL1108</b>	3	1.27 [32.3mm]	.47 [11.9mm]	.61 [15.4mm]	2.12 [53.8mm]	.35 [8.9mm]
<b>ETL1110</b>	3	1.33 [33.8mm]	.47 [11.9mm]	.61 [15.4mm]	2.26 [57.4mm]	.43 [10.8mm]

Model ET1108 flush socket gears available in 05 & 06 diameters only.

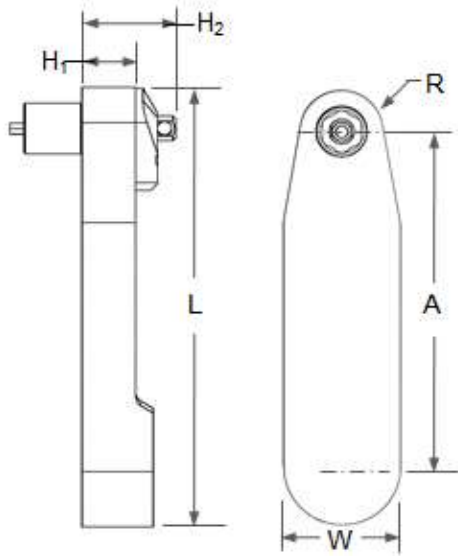
**Model ET1110 is designed for use with a flush socket gear up to the 08 dia.**

Table 1 Fastener Diameter		Table 2 Ext'd.Socket Length (Table 1, Accessories)		Table 3 Spline Keys (See Table 5, Accessories)		Table 4 Drive Shaft Extended Length		
Dash	Diameter	Code	Extension	Code	Size	Code	Length	Index Unit
05	5/32"	A	Flush	05SPK	5/32" Dia. Spline Bit	A	-	With
06	3/16"	D	0.5"	06SPK	3/16" Dia. Spline Bit	B	-	Without
08	1/4"	G	1.0"	08SPK	1/4" Dia. Spline Bit	C	2.0"	With
		J	2.0"			D	2.0"	Without
		L	3.0"			G	6.0"	With
						H	6.0"	Without

Example of Complete Tool Model Number:



# Offset Pistol Grip Tools



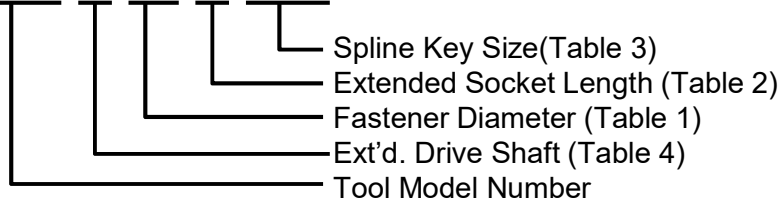
Model Number	No. of Gears	A	H <sub>1</sub>	H <sub>2</sub>	L	W	R
ETL1129	5	2.68" [68.1mm]	.47" [11.9mm]	.61" [15.4mm]	3.53" [89.7mm]	1.0" [25.4mm]	.35" [8.9mm]

- Model ETL1129 is designed for installation of -5, -6, -8 diameter fasteners with use of extended sockets.
- Model ETL1129 has the capability for flush socket gears on 05 & 06 diameters only

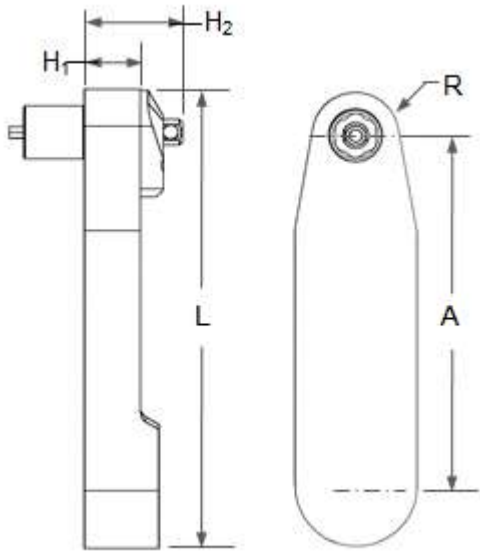
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D	2.0"	Without																																																		
G	6.0"	With																																																		
H	6.0"	Without																																																		

Example of Complete Tool Model Number:

ETL1129 C 08 D 08SPK



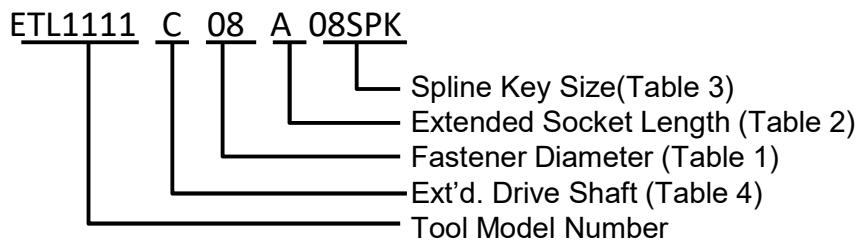
# Offset Pistol Grip Tools



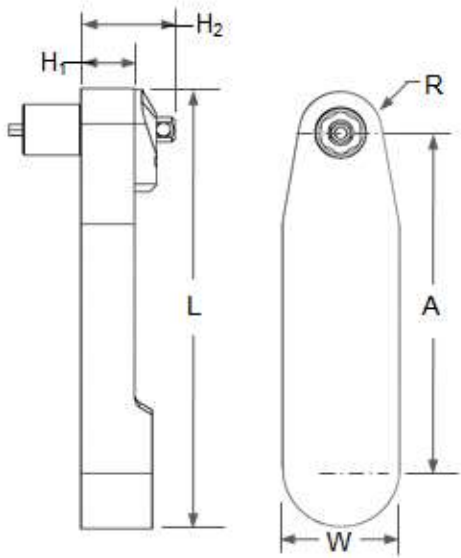
Model Number	No. of Gears	A	H <sub>1</sub>	H <sub>2</sub>	L	R
<b>ETL1111</b>	5	2.75 [69.9mm]	.37 [9.4mm]	.61 [15.4mm]	3.68 [93.3mm]	.43 [10.8mm]

Table 1 Fastener Diameter		Table 2 Ext'd.Socket Length (Table 1, Accessories)		Table 3 Spline Keys (See Table 5, Accessories)		Table 4 Drive Shaft Extended Length		
Dash	Diameter	Code	Extension	Code	Size	Code	Length	Index Unit
05	5/32"	A	Flush	05SPK	5/32" Dia. Spline Bit	A	-	With
06	3/16"	D	0.5"	06SPK	3/16" Dia. Spline Bit	B	-	Without
		G	1.0"	08SPK	1/4" Dia. Spline Bit	C	2.0"	With
		J	2.0"			D	2.0"	Without
		L	3.0"			G	6.0"	With
						H	6.0"	Without

Example of Complete Tool Model Number:



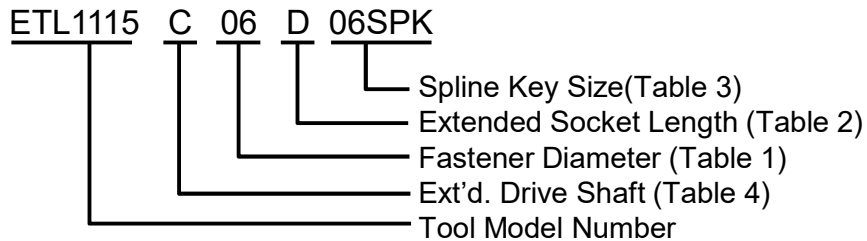
# Offset Pistol Grip Tools



Model Number	No. of Gears	A	H <sub>1</sub>	H <sub>2</sub>	L	R	W
ETL1115	6	3.38 [85.9mm]	.47 [11.9mm]	.61 [15.4mm]	4.20 [106.7mm]	.32 [8.2mm]	1.0 [25.4mm]

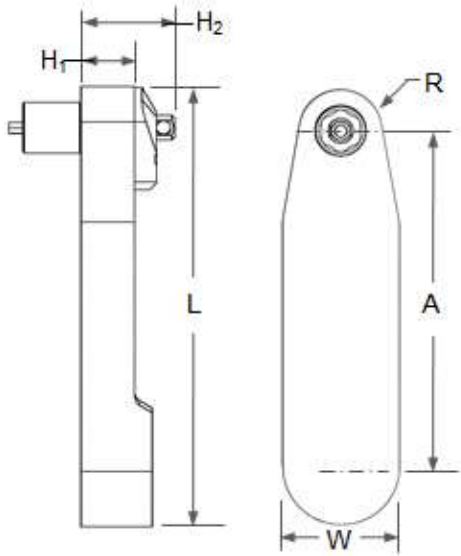
Table 1 Fastener Diameter		Table 2 Ext'd. Socket Length				Table 3 Spline Bits (See Table 5, Accessories)		Table 4 Drive Shaft Extended Length		
Dash	Dia.	Dia.	Code	Socket Length	Socket Number	Code	Size	Code	Length	Index Unit
05	5/32"	-05	D	1/2"	463-9051	05SPK	5/32" Dia. SPK Bit	C	2.0"	With
06	3/16"		G	1.0"	463-9052	06SPK	3/16" Dia. SPK Bit	D	2.0"	Without
			J	2.0"	463-9054			G	6.0"	With
			L	3.0"	463-9056	H	6.0"	Without		
		-06	D	1/2"	463-9061					
			G	1.0"	463-9062					
			J	2.0"	463-9064					
			L	3.0"	463-9066					

Example of Complete Tool Model Number:





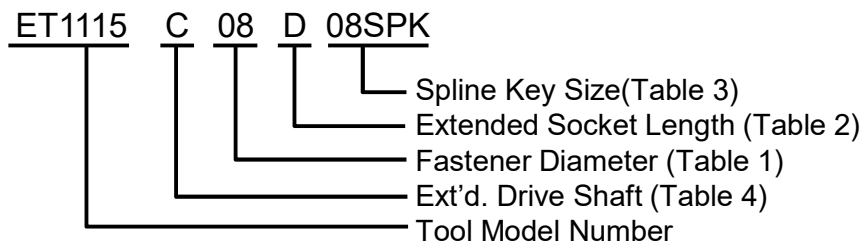
# Offset Pistol Grip Tools



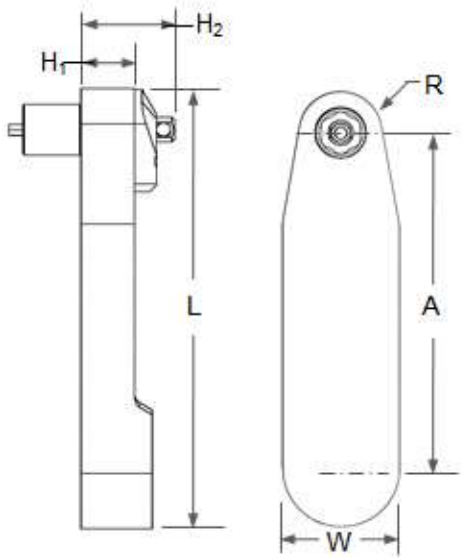
Model Number	No. of Gears	A	H <sub>1</sub>	H <sub>2</sub>	L	R	W
ET1115	6	3.38 [85.9mm]	.47 [11.9mm]	.61 [15.4mm]	4.20 [106.7mm]	.32 [8.2mm]	1.0 [25.4mm]

Table 1 Fastener Diameter		Table 2 Ext'd. Socket Length				Table 3 Spline Bits (See Table 5, Accessories)		Table 4 Drive Shaft Extended Length		
Dash	Dia.	Dia.	Code	Socket Length	Socket Number	Code	Size	Code	Length	Index Unit
08	1/4"	-08	D	1/2"	463-9021	08SPK	1/4" Dia. SPK Bit	C	2.0"	With
			G	1.0"	463-9022			D	2.0"	Without
			J	2.0"	463-9024			G	6.0"	With
			L	3.0"	463-9026			H	6.0"	Without

Example of Complete Tool Model Number:



# Offset Pistol Grip Tools



ETL1117

Reverse Drive Socket



Model Number	No. of Gears	A	H <sub>1</sub>	H <sub>2</sub>	L	W	R
ETL1117	6	3.39" [86.1mm]	.47" [11.9mm]	.61" [15.4mm]	4.24" [107.7mm]	1.0" [25.4mm]	.35" [8.9mm]

**Table 1**  
Fastener Diameter

Dash	Diameter
05	5/32"
06	3/16"
08	1/4"

**Table 2**  
\*Ext'd. Socket Length  
(Table 1, Accessories)

Code	Extension
D	0.5"
G	1.0"
J	2.0"
L	3.0"

**Table 3**  
Spline Keys  
(See Table 5, Accessories)

Code	Size
05SPK	5/32" Dia. Spline Bit
06SPK	3/16" Dia. Spline Bit
08 SPK	1/4" Dia Spline Bit

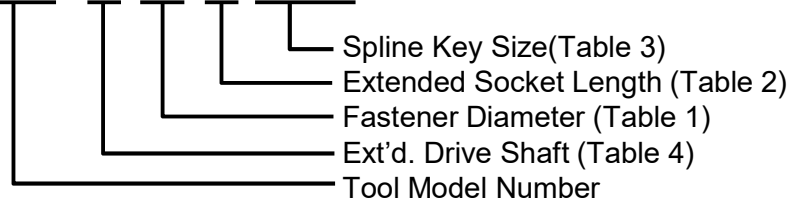
**Table 4**  
Drive Shaft Extended Length

Code	Length	Index Unit
A	-	With
B	-	Without
C	2.0"	With
D	2.0"	Without
G	6.0"	With
H	6.0"	Without

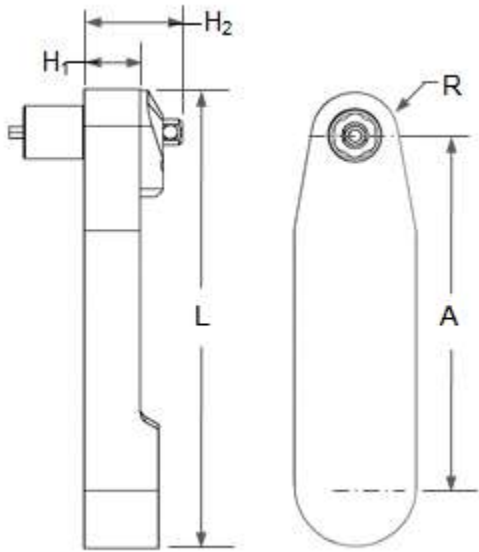
\*Not available in a Flush Socket Tool

Example of Complete Tool Model Number:

ETL1117 C 06 D 06SPK



# Offset Pistol Grip Tools

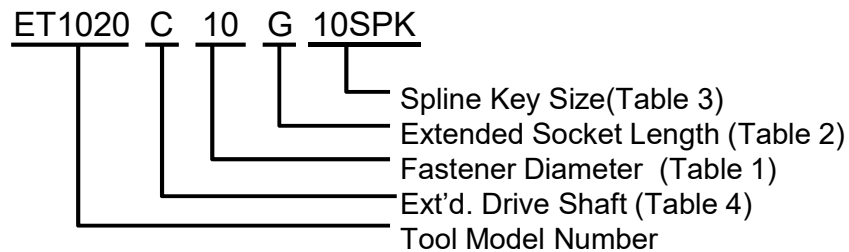


Model Number	No. of Gears	A	H <sub>1</sub>	H <sub>2</sub>	L	R
<b>ET1020</b>	5	3.38 [85.9mm]	.68 [17.3mm]	1.28 [32.5mm]	4.44 [113.0mm]	.50 [12.7mm]

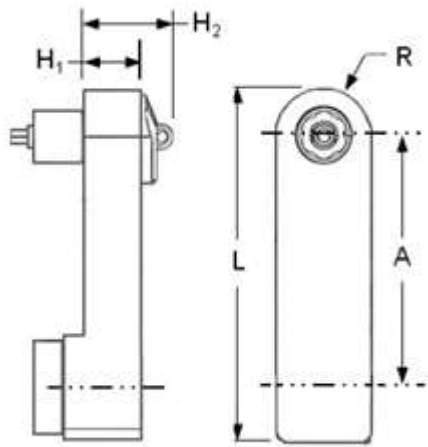
The above tool model is designed for use with a flush socket gear or extended sockets

Table 1 Fastener Diameter		Table 2 Ext'd.Socket Length (Table 2, Accessories)		Table 3 Spline Keys (See Table 5, Accessories)		Table 4 Drive Shaft Extended Length		
Dash	Diameter	Code	Extension	Code	Size	Code	Length	Index Unit
10	5/16"	A	Flush	10SPK	5/16" Dia. Spline Bit	A	-	With
		E	5/8"			B	-	Without
		G	1.0"			C	2.0"	With
		J	2.0"			D	2.0"	Without
		L	3.0"			G	6.0"	With
						H	6.0"	Without

Example of Complete Tool Model Number:



# Offset Pistol Grip Tools



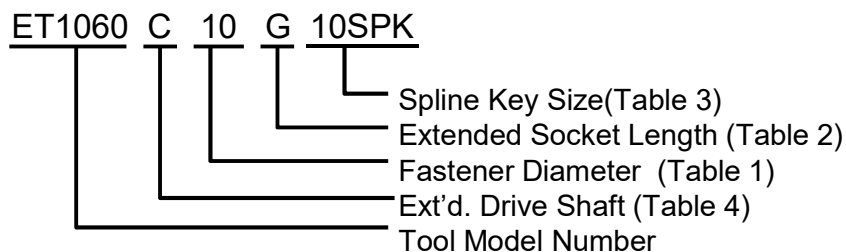
Modified Atlas Copco  
LBB26EPX003-U Motor

Model Number	No. of Gears	A	H <sub>1</sub>	H <sub>2</sub>	L	R
<b>ET1060</b>	6	4.16 [105.7mm]	.68 [17.3mm]	.86 [21.9mm]	5.16 [131.1mm]	.50 [12.7mm]

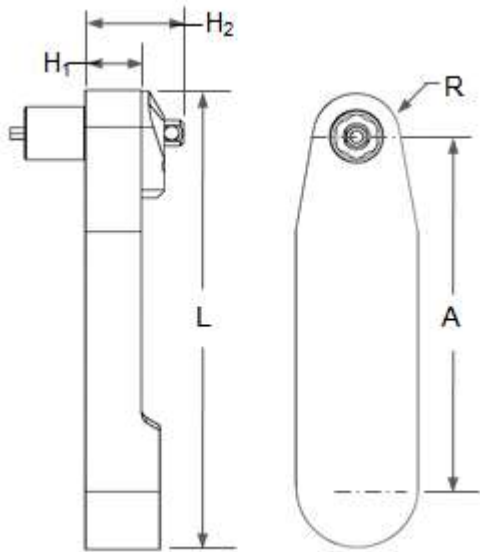
The above tool model is designed for use with a flush socket gear or extended sockets

Table 1 Fastener Diameter		Table 2 Ext'd.Socket Length (Table 2, Accessories)		Table 3 Spline Keys (See Table 5, Accessories)		Table 4 Drive Shaft Extended Length		
Dash	Diameter	Code	Extension	Code	Size	Code	Length	Index Unit
10	5/16"	A	Flush	10SPK	5/16" Dia. Spline Bit	A	-	With
		E	5/8"			B	-	Without
		G	1.0"			C	2.0"	With
		J	2.0"			D	2.0"	Without
		L	3.0"			G	6.0"	With
						H	6.0"	Without

Example of Complete Tool Model Number:



# Offset Pistol Grip Tools

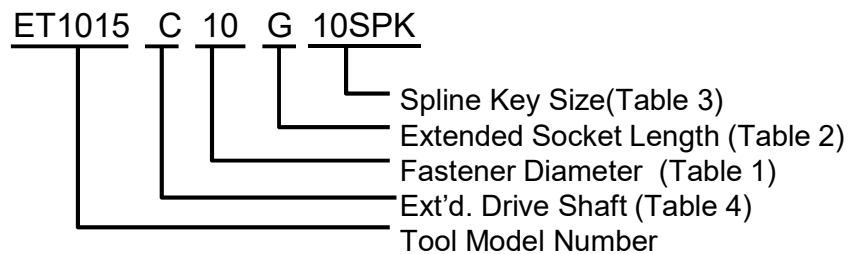


Model Number	No. of Gears	A	H <sub>1</sub>	H <sub>2</sub>	L	R
<b>ET1015</b>	3	1.62 [41.1mm]	.68 [17.3mm]	1.28 [32.5mm]	2.69 [68.3mm]	.50 [12.7mm]

The above tool model is designed for use with a flush socket gear or extended sockets

Table 1 Fastener Diameter	Table 2 Ext'd.Socket Length (Table 2, Accessories)	Table 3 Spline Keys (See Table 5, Accessories)	Table 4 Drive Shaft Extended Length																																									
<table border="1"> <thead> <tr> <th>Dash</th> <th>Diameter</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>5/16"</td> </tr> </tbody> </table>	Dash	Diameter	10	5/16"	<table border="1"> <thead> <tr> <th>Code</th> <th>Extension</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Flush</td> </tr> <tr> <td>E</td> <td>5/8"</td> </tr> <tr> <td>G</td> <td>1.0"</td> </tr> <tr> <td>J</td> <td>2.0"</td> </tr> <tr> <td>L</td> <td>3.0"</td> </tr> </tbody> </table>	Code	Extension	A	Flush	E	5/8"	G	1.0"	J	2.0"	L	3.0"	<table border="1"> <thead> <tr> <th>Code</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>10SPK</td> <td>5/16" Dia. Spline Bit</td> </tr> </tbody> </table>	Code	Size	10SPK	5/16" Dia. Spline Bit	<table border="1"> <thead> <tr> <th>Code</th> <th>Length</th> <th>Index Unit</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>-</td> <td>With</td> </tr> <tr> <td>B</td> <td>-</td> <td>Without</td> </tr> <tr> <td>C</td> <td>2.0"</td> <td>With</td> </tr> <tr> <td>D</td> <td>2.0"</td> <td>Without</td> </tr> <tr> <td>G</td> <td>6.0"</td> <td>With</td> </tr> <tr> <td>H</td> <td>6.0"</td> <td>Without</td> </tr> </tbody> </table>	Code	Length	Index Unit	A	-	With	B	-	Without	C	2.0"	With	D	2.0"	Without	G	6.0"	With	H	6.0"	Without
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Code	Length	Index Unit																																										
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B	-	Without																																										
C	2.0"	With																																										
D	2.0"	Without																																										
G	6.0"	With																																										
H	6.0"	Without																																										

Example of Complete Tool Model Number:



# Straight Pistol Grip Tools



## Tool Data:

Total Tool Length: 9.8" [ 250.8mm ] without socket

Total Wt: 2.46 lbs [ 1.56 kg ] with socket

Table 1 Fastener Diameter		Table 2 Ext'd.Socket Length		Table 3 Spline Keys	
Dash	Diameter	Code	Extension	Code	Size
05	5/32"	J	2.0"	05SPK	5/32" Dia. Spline Bit
06	3/16"	L	3.0"	06SPK	3/16" Dia. Spline Bit
08	1/4"			08SPK	1/4" Dia. Spline Bit

Example of Complete Tool Model Number:

ETL2000B 06 J 06SPK

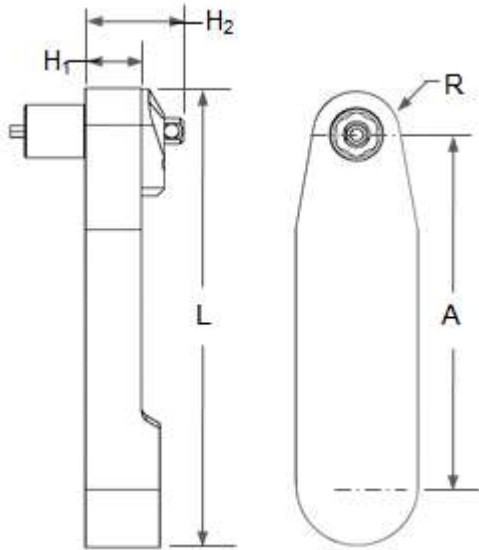


Spline Key Size (Table 3)  
Extended Socket Length (Table 2)  
Fastener Hex Size (Table 1)  
Tool Model Number

**Tool Models:** ET(L)2000, ET2000

Fastener Diameter	Socket Number	Socket Length	Socket Code	"A" Dia. Ref.	Spline Key
-5	463-9600	2.0"	J	0.53"	493-9600
	463-9601	3.0"	L		493-9601
-6	463-9602	2.0"	J	0.56"	493-9602
	463-9603	3.0"	L		493-9603
-8	463-9604	2.0"	J	0.65"	493-9604
	463-9605	3.0"	L		493-9605

# 17° Offset Tools



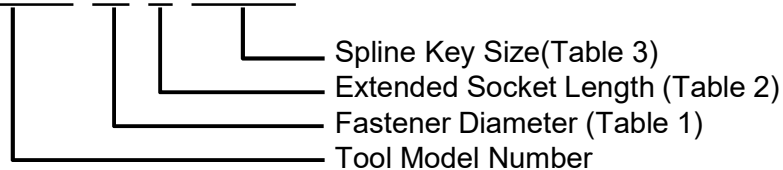
Model Number	No. of Gears	A	H <sub>1</sub>	H <sub>2</sub>	L	R
<b>ETL3129A</b>	5	2.68 [68.1mm]	.47 [11.9mm]	.61 [15.4mm]	3.53 [89.7mm]	.35 [8.8mm]

Model ETL3129A is designed for use with extended sockets on all sizes. Flush sockets can only be used with the -05 and -06 diameters.

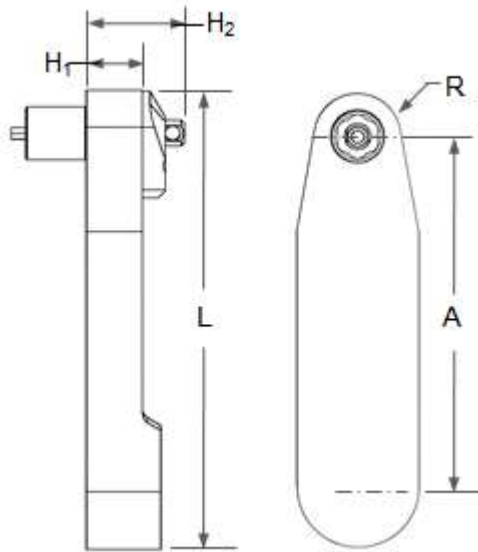
Table 1 Fastener Diameter		Table 2 Ext'd.Socket Length (Table 1, Accessories)		Table 3 Spline Keys (See Table 5, Accessories)	
Dash	Diameter	Code	Extension	Code	Size
05	5/32"	A	Flush	05SPK	5/32" Dia. Spline Bit
06	3/16"	D	0.5"	06SPK	3/16" Dia. Spline Bit
08	1/4"	G	1.0"	08SPK	1/4" Dia. Spline Bit
		J	2.0"		
		L	3.0"		

Example of Complete Tool Model Number:

**ETL3129A 08 D 08SPK**



# 17° Offset Tools



Flush Socket Gear Applications



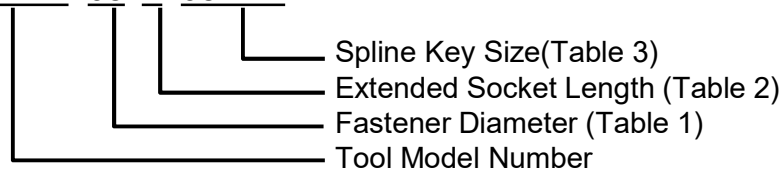
Model Number	No. of Gears	A	H <sub>1</sub>	H <sub>2</sub>	L	R
<b>ETL3110A</b>	3	1.33 [33.8mm]	.47 [11.9mm]	.61 [15.4mm]	2.26 [57.4mm]	.43 [10.8mm]
<b>ETL3111A</b>	5	2.75 [69.9mm]	.47 [11.9mm]	.61 [15.4mm]	3.68 [93.3mm]	.43 [10.8mm]

Models ETL3110 & ETL3111 are designed for use with a flush socket gear or with extended sockets.

Table 1 Fastener Diameter		Table 2 Ext'd.Socket Length (Table 1, Accessories)		Table 3 Spline Keys (See Table 5, Accessories)	
Dash	Diameter	Code	Extension	Code	Size
05	5/32"	A	Flush	05SPK	5/32" Dia. Spline Bit
06	3/16"	D	0.5"	06SPK	3/16" Dia. Spline Bit
08	1/4"	G	1.0"	08SPK	1/4" Dia. Spline Bit
		J	2.0"		
		L	3.0"		

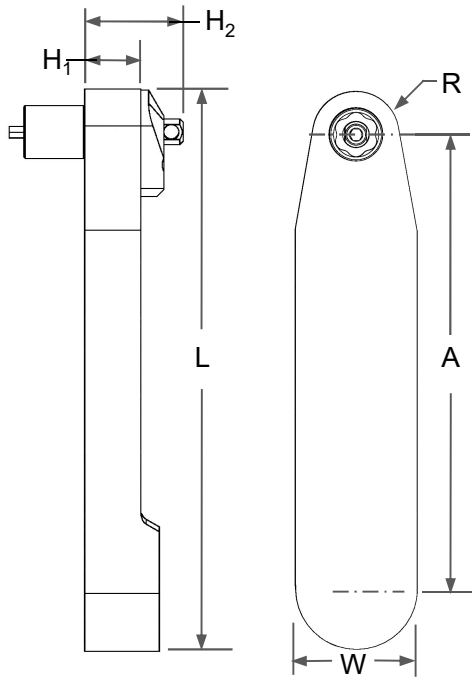
Example of Complete Tool Model Number:

ETL3111A 08 A 08SPK





# 17° Offset Tools



Model Number	No. of Gears	A	H <sub>1</sub>	H <sub>2</sub> (Ref)	W	L	R
<b>ETL3118</b>	7	4.05 [102.8mm]	.47 [11.9mm]	.78 [19.8mm]	1.0 [25.4mm]	4.9 [124.5mm]	.35 [8.8mm]

**Table 1**  
Fastener Diameter

Dash	Diameter
05	5/32"
06	3/16"
08	1/4"

Note: 08 Dia. Not available with a flush socket gear

**Table 2**  
Ext'd.Socket Length  
(Table 1, Accessories)

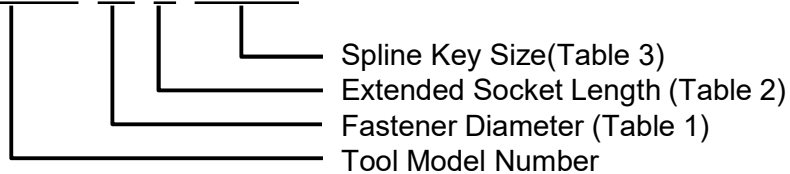
Code	Extension
D	0.5"
G	1.0"
J	2.0"
L	3.0"

**Table 3**  
Spline Keys  
(See Table 5, Accessories)

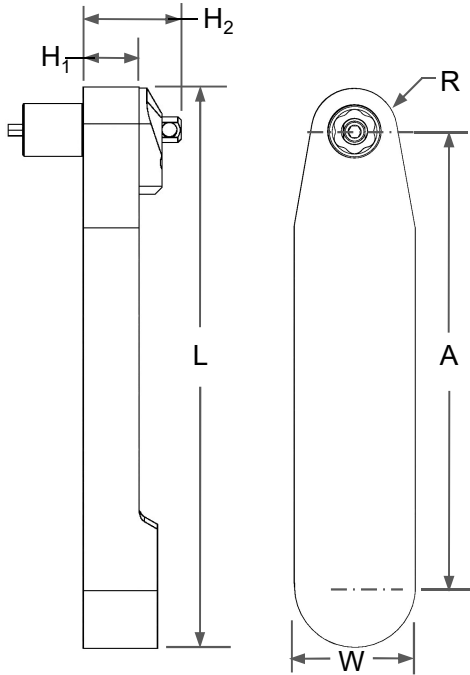
Code	Size
000	No Spline Bit
05SPK	5/32" Dia. Spline Bit
06SPK	3/16" Dia. Spline Bit
08SPK	1/4" Dia. Spline Bit

Example of Complete Tool Model Number:

**ETL3118A 06 E 06SPK**



# 17° Offset Tools



Flush Socket Gear Applications

Model Number	No. of Gears	A	H <sub>1</sub>	H <sub>2</sub> (Ref)	W	L	R
<b>ETL3131</b>	7	4.11 [104.4mm]	.47 [11.9mm]	.78 [19.8mm]	1.0 [25.4mm]	4.97 [126.2mm]	.43 [10.8mm]

**Table 1**  
Fastener Diameter

Dash	Diameter
08	1/4"

**Table 2**  
Ext'd.Socket Length  
(Table 1, Accessories)

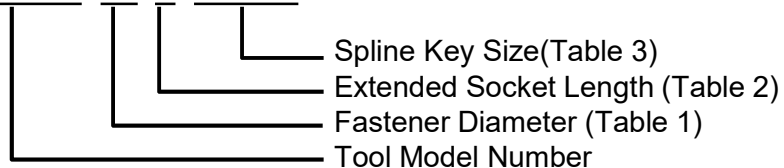
Code	Extension
A	Flush
D	0.5"
G	1.0"
J	2.0"
L	3.0"

**Table 3**  
Spline Keys  
(See Table 5, Accessories)

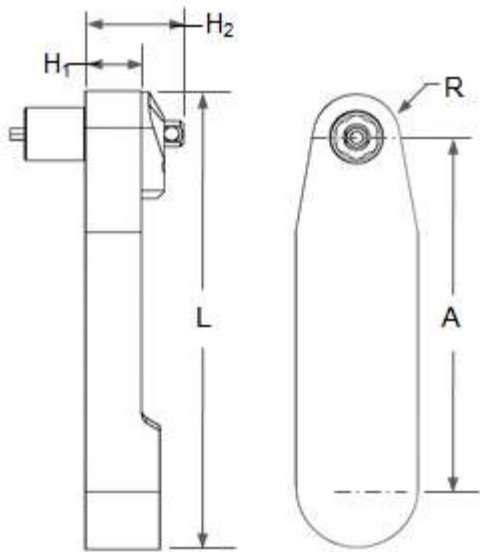
Code	Size
000	No Spline Bit
08SPK	1/4" Dia. Spline Bit

Example of Complete Tool Model Number:

ETL3131A 08 A 08SPK



# 17° Offset Tools



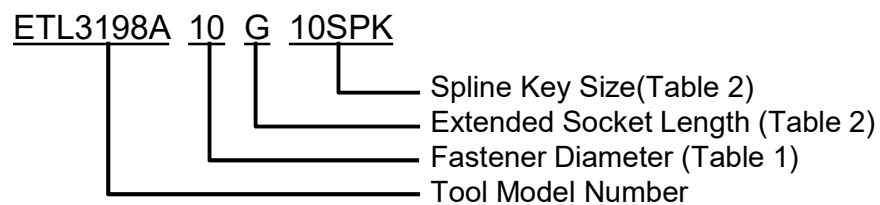
Note: Uses LTV28N30-10

Model Number	No. of Gears	A	H <sub>1</sub>	H <sub>2</sub>	L	R
<b>ET3198A</b>	5	3.27 [83.1mm]	.50 [12.7mm]	.65 [16.7mm]	4.3 [110.0mm]	.437 [11.1mm]

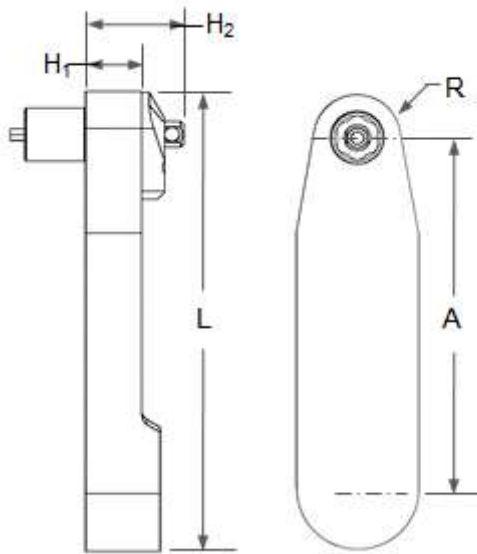
Model ET3198A is designed for use with extended sockets

Table 1 Fastener Diameter	Table 2 Ext'd.Socket Length (Table 3, Accessories)	Table 3 Spline Keys (See Table 5, Accessories)																				
<table border="1"> <thead> <tr> <th>Dash</th> <th>Diameter</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>5/16"</td> </tr> </tbody> </table>	Dash	Diameter	10	5/16"	<table border="1"> <thead> <tr> <th>Code</th> <th>Extension</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Flush</td> </tr> <tr> <td>E</td> <td>5/8"</td> </tr> <tr> <td>G</td> <td>1.0"</td> </tr> <tr> <td>J</td> <td>2.0"</td> </tr> <tr> <td>L</td> <td>3.0"</td> </tr> </tbody> </table>	Code	Extension	A	Flush	E	5/8"	G	1.0"	J	2.0"	L	3.0"	<table border="1"> <thead> <tr> <th>Code</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>10SPK</td> <td>5/16" Dia. Spline Bit</td> </tr> </tbody> </table>	Code	Size	10SPK	5/16" Dia. Spline Bit
Dash	Diameter																					
10	5/16"																					
Code	Extension																					
A	Flush																					
E	5/8"																					
G	1.0"																					
J	2.0"																					
L	3.0"																					
Code	Size																					
10SPK	5/16" Dia. Spline Bit																					

Example of Complete Tool Model Number:



# 17° Offset Tools



Atlas Copco Motor: LTV38N68 Mod.



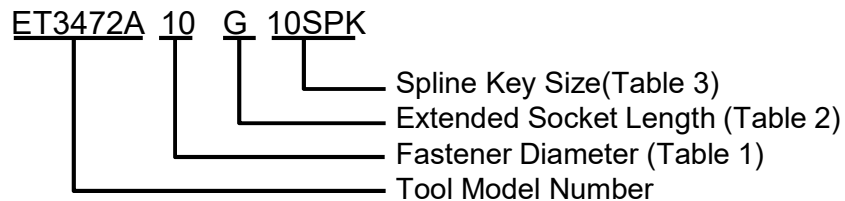
200 RPM

Model Number	No. of Gears	A	H <sub>1</sub>	H <sub>2</sub>	L	R
<b>ET3472A</b>	5	3.00 [76.2mm]	.69 [17.5mm]	.94 [23.9mm]	4.19 [106.4mm]	.56[14.2mm]

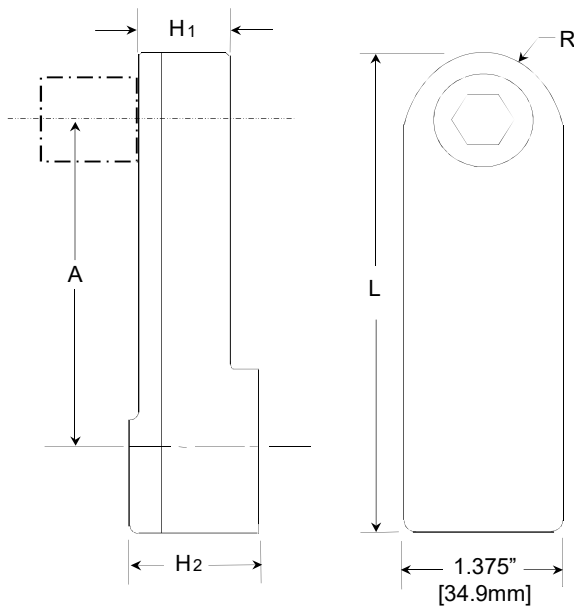
Model ET3492A is designed for use with a flush socket gear or extended sockets

<b>Table 1</b> Fastener Diameter	<b>Table 2</b> Ext'd.Socket Length (Table 3, Accessories)	<b>Table 3</b> Spline Keys (See Table 5, Accessories)																				
<table border="1"> <thead> <tr> <th>Dash</th> <th>Diameter</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>5/16"</td> </tr> </tbody> </table>	Dash	Diameter	10	5/16"	<table border="1"> <thead> <tr> <th>Code</th> <th>Extension</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Flush</td> </tr> <tr> <td>E</td> <td>5/8"</td> </tr> <tr> <td>G</td> <td>1.0"</td> </tr> <tr> <td>J</td> <td>2.0"</td> </tr> <tr> <td>L</td> <td>3.0"</td> </tr> </tbody> </table>	Code	Extension	A	Flush	E	5/8"	G	1.0"	J	2.0"	L	3.0"	<table border="1"> <thead> <tr> <th>Code</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>10SPK</td> <td>5/16" Dia. Spline Bit</td> </tr> </tbody> </table>	Code	Size	10SPK	5/16" Dia. Spline Bit
Dash	Diameter																					
10	5/16"																					
Code	Extension																					
A	Flush																					
E	5/8"																					
G	1.0"																					
J	2.0"																					
L	3.0"																					
Code	Size																					
10SPK	5/16" Dia. Spline Bit																					

Example of Complete Tool Model Number:



# 17° Offset Tools



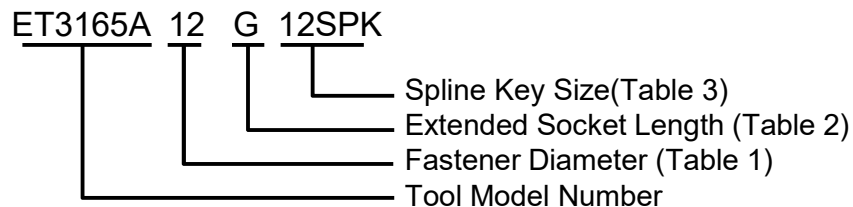
Ref. Atlas Copco  
Motor: LTV38N68-13

240 RPM

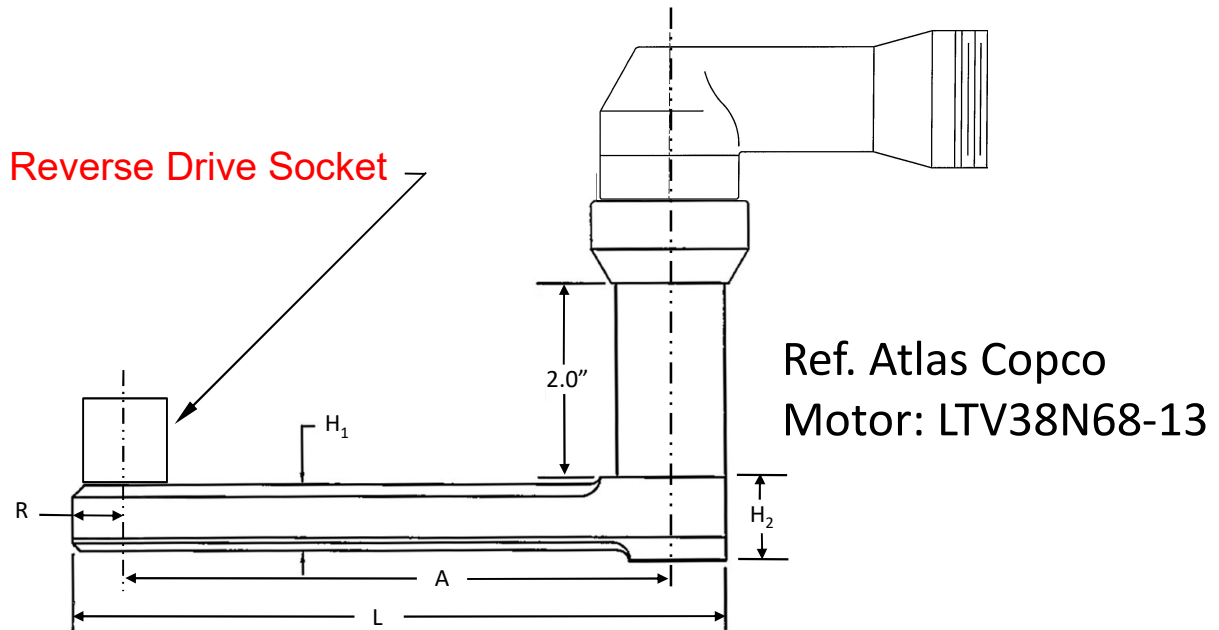
Model Number	No. of Gears	A	H <sub>1</sub>	H <sub>2</sub>	L	R
<b>ET3165A</b>	5	3.19 [81.0mm]	.69 [17.6mm]	.87 [22.2mm]	4.44 [112.8mm]	.68[17.3mm]

Table 1 Fastener Diameter		Table 2 Ext'd.Socket Length		Table 3 Spline Keys	
Dash	Diameter	Code	Extension	Code	Size
12	3/8"	A	Flush	12SPK	3/8" Dia. Spline Bit
		G	1.0"		
		J	2.0"		

Example of Complete Tool Model Number:



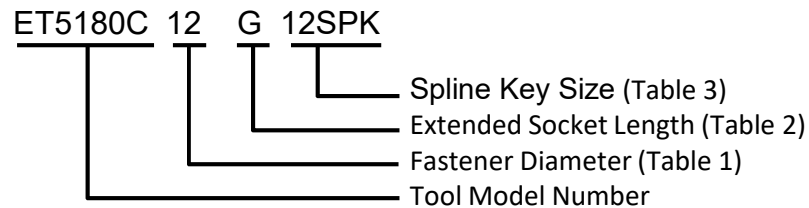
# 17° Offset Tools



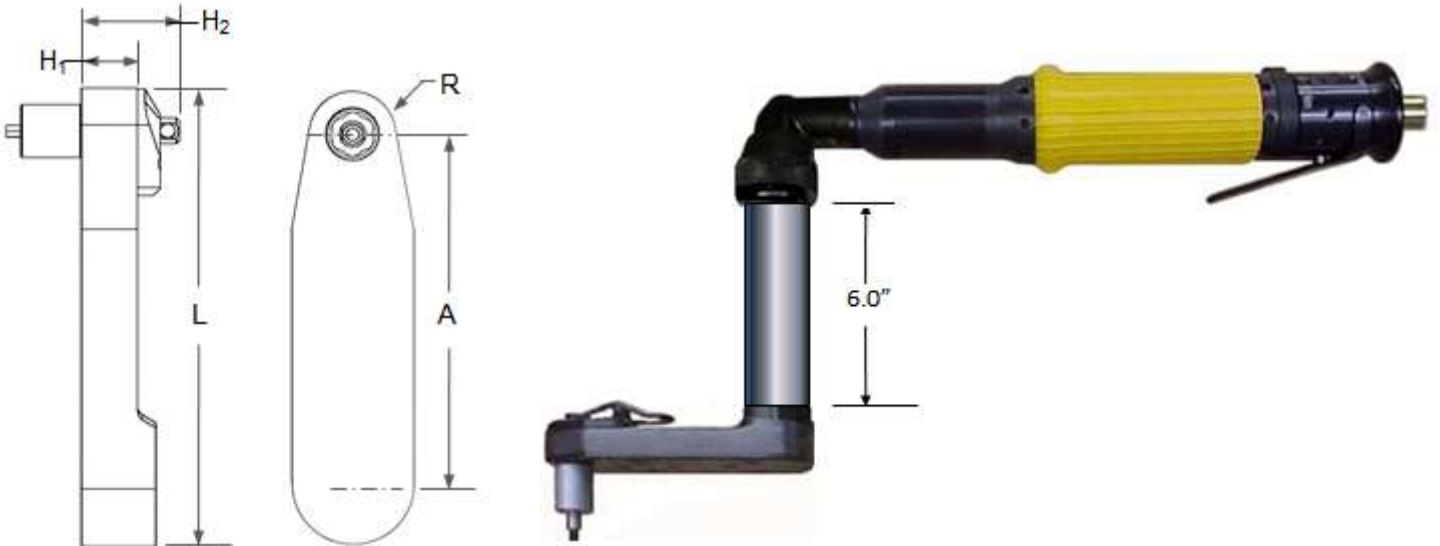
Model Number	No. of Gears	A	H <sub>1</sub>	H <sub>2</sub>	L	R
<b>ET5180C</b>	8	5.44 [138.2mm]	.69 [17.6mm]	.87 [22.2mm]	6.68 [169.7mm]	.68[17.3mm]

Table 1 Fastener Diameter		Table 2 Ext'd.Socket Length		Table 3 Spline Keys	
Dash	Diameter	Code	Extension	Code	Size
10	5/16"	E	5/8"	10SPK	5/16" Dia. Spline Bit
12	3/8"	G	1.0"	12SPK	3/8" Dia. Spline Bit
		J	2.0"		

Example of Complete Tool Model Number:



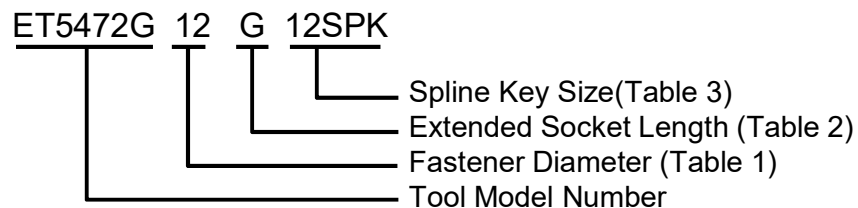
# 17° Offset Tools



Model Number	No. of Gears	A	H <sub>1</sub>	H <sub>2</sub>	L	R
<b>ET5472G</b>	5	3.00 [76.2mm]	.69 [17.5mm]	.94 [23.9mm]	4.19 [106.4mm]	.56[14.2mm]

Table 1 Fastener Diameter		Table 2 Ext'd.Socket Length		Table 3 Spline Keys	
Dash	Diameter	Code	Extension	Code	Size
10	5/16"	E	5/8"	10SPK	5/16" Dia. Spline Bit
12	3/8"	G	1.0"	12SPK	3/8" Dia. Spline Bit
		J	2.0"		

Example of Complete Tool Model Number:



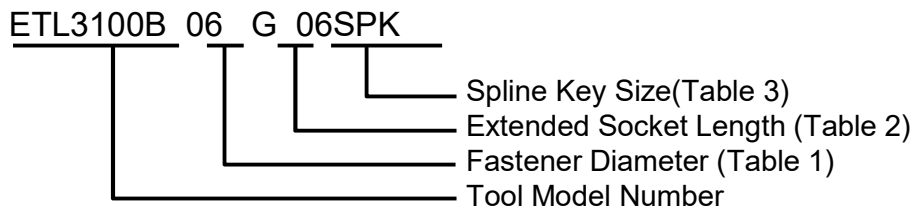
# Right Angle Tools



Model Number	L	H	Center to Side Angle Head	Weight
ETL3100B	9.6" [243mm]	1.5" [36.6mm]	0.53" [13.5mm]	1.9 lbs [0.88 kg]

Table 1 Fastener Diameter		Table 2 Ext'd.Socket Length (Table 3, Accessories)		Table 3 Spline Keys (See Table 5, Accessories)	
Dash	Diameter	Code	Extension	Code	Size
06	3/16"	E	5/8"	06SPK	3/16" Dia. Spline Bit
08	1/4"	G	1.0"	08SPK	1/4" Dia. Spline Bit
		J	2.0"		
		L	3.0"		

Example of Complete Tool Model Number:





# Right Angle Tools

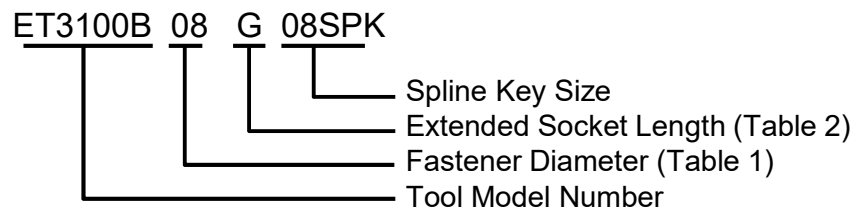


Note: Uses LTV28N30-10 Modified Motor

Model Number	L	H	Center to Side Angle Head	Weight
<b>ET3100B08(*)08SPK</b>	13.8" [350mm]	1.5" [36.6mm]	0.53" [13.5mm]	3.1 lbs [1.4 kg]

Table 1 Fastener Diameter		Table 2 Extended Sockets and Spline Keys			
Dash	Diameter	Code	Extension	Socket P/N	Spline Key
8	1/4"	E	5/8"	463-9121	493-9121
		G	1.0"	463-9122	493-9122
		J	2.0"	463-9124	493-9124
		L	3.0"	463-9126	493-9126

Example of Complete Tool Model Number:



# Right Angle Tools

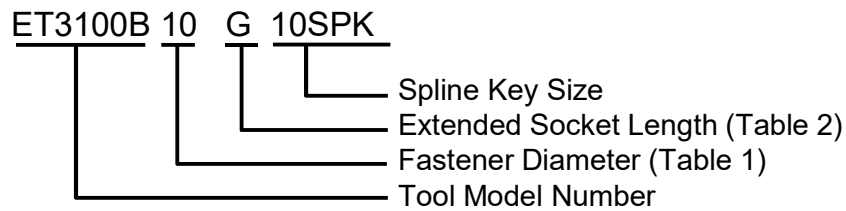


Note: Uses LTV28N30-10 Modified Motor

Model Number	L	H	Center to Side Angle Head	Weight
ET3100B10(*)10SPK	13.8" [350mm]	1.5" [36.6mm]	0.53" [13.5mm]	3.1 lbs [1.4 kg]

Table 1 Fastener Diameter		Table 2 Extended Sockets & Spline Keys			
Dash	Dia.	Code	Extension	Socket P/N	Spline Keys
10	5/16"	E	5/8"	463-9111	493-9111
		G	1.0"	463-9112	493-9112
		J	2.0"	463-9114	493-9114
		L	3.0"	463-9116	493-9116

Example of Complete Tool Model Number:



# Right Angle Tools



Motor: LTV28N30-10

Model Number	L	H (Without Socket)	Center to Side Angle Head	Weight
ET3100B12( * )SPK	16.8" [427mm]	1.6" [41mm]	0.79" [20.0mm]	4.4 lbs [2.0 kg]

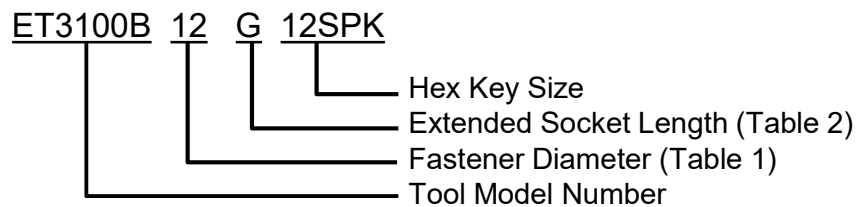
**Table 1**  
Fastener Diameter

Dash	Dia.
12	3/8"

**Table 2**  
Ext'd.Sockets , Spline Key & Hex Key Details

		-12 Diameter			
Code	Extension	Socket P/N	Spline Key	Hex Key Holder	Hex Key
G	1.0"	463-9101	493-9101	016-9799	093-9007
J	2.0"	463-9104	493-9104	NA	093-9007
L	3.0"	463-9106	493-9106	NA	093-9007

Example of Complete Tool Model Number:



# Right Angle Tools



Note: Uses LTV38N68-13 Modified Motor

Model Number	L	H (Without Socket)	Center to Side Angle Head	Weight
<b>ET3100B14 (*) 187E</b>	16.8" [427 mm]	2.75" [69.8mm]	0.79" [20.0mm]	4.8 lbs [2.2 kg]

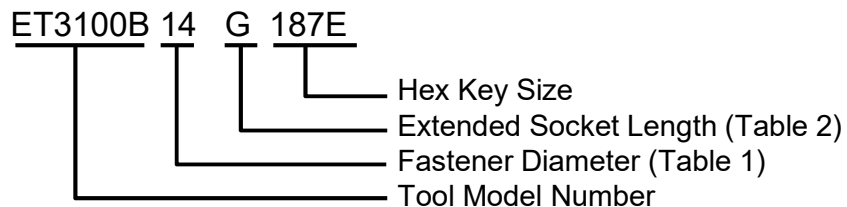
**Table 1**  
Fastener Diameter

Dash	Dia.
14	7/16"

**Table 2**  
Ext'd.Sockets and Hex Key Details

		-14 Diameter		
Code	Extension	Socket P/N	Hex Key Holder	Hex Key
G	1.0"	463-9298	016-9897	093-9023
J	2.0"	463-9300	016-9898	
L	3.0"	463-9303	016-9899	

Example of Complete Tool Model Number:



# Right Angle Tools

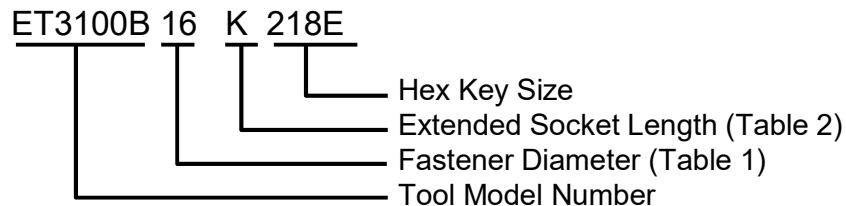


Note: Uses LTV46N150-L13 Modified Motor

Model Number	L	H (Without Socket)	Center to Side Angle Head	Weight
<b>ET3100B16 (*) 218E</b>	20.3" [515mm]	2.04" [52mm]	.984" [25mm]	7.2 lbs [3.3 kg]

Table 1 Fastener Diameter		Table 2 Ext'd.Sockets and Hex Key Details				
Dash	Dia.	-16 Diameter				
16	1/2"	Code	Extension	Socket P/N	Hex Key Holder	Hex Key
		G	1.00"	TBD	TBD	093-9262
		I	1.75"	263-9675	016-9819	093-9262
		K	2.5"	263-9676	016-9820	093-9262

Example of Complete Tool Model Number:

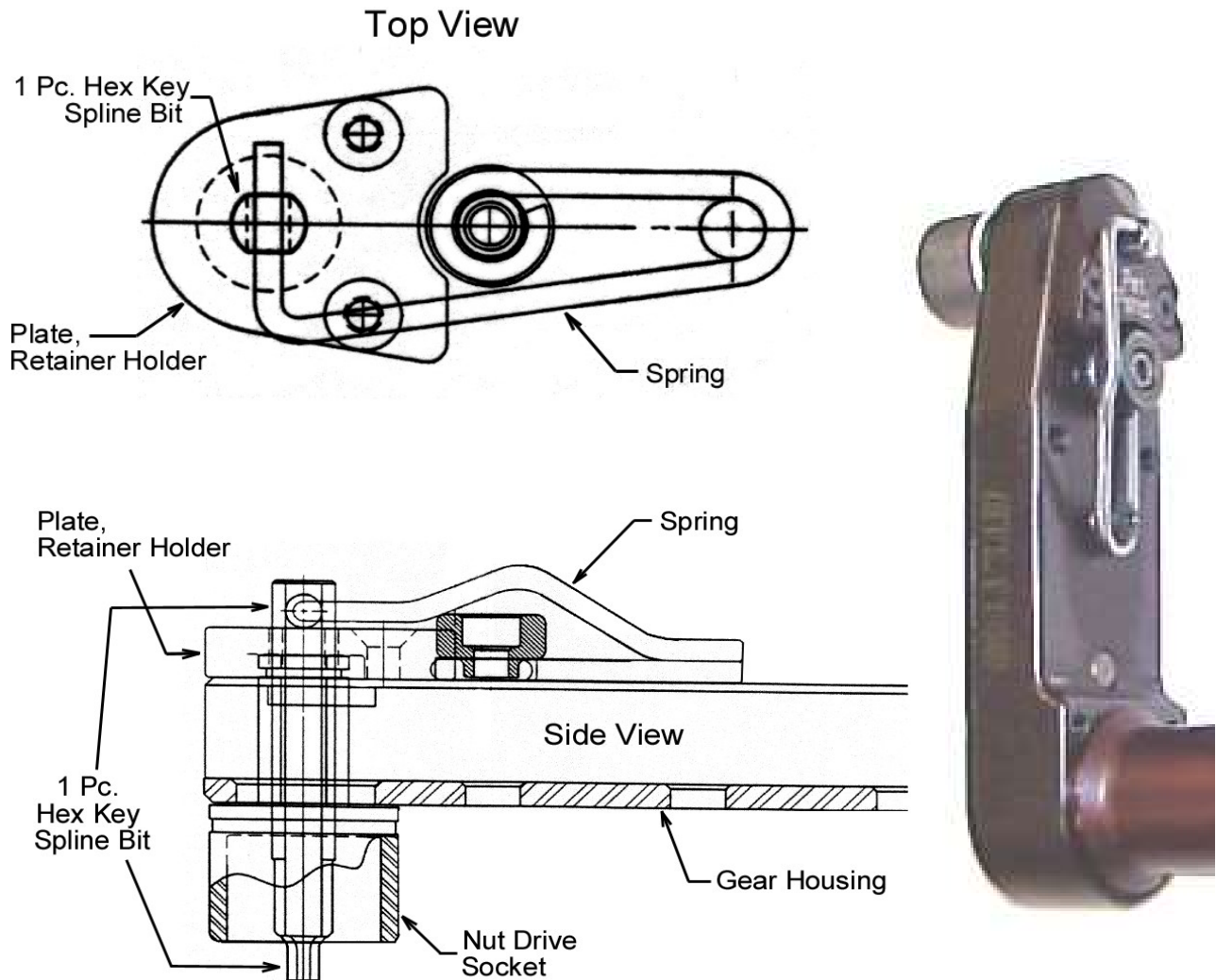


## SECTION 2

# Accessories for Power Installation Tools

# ERGO KEY™ System For Power Tools

## Conversion From hex key to Spline-Lok® key



### Kit Part Numbers:

Tool Model	Kit Ordering No.
ETL1108 Series	031-9413
ETL1129 Series	031-9414
ETL3109 Series	
ETL1110 Series	031-9415
ETL1111 Series	031-9416
ETL3111 Series	
ET1020 Series	031-9418

### Kit Includes:

- (1) Plate, Retainer Holder
  - (1) Return Spring
  - (2) Bearing Pins
- All Necessary Screws and Bushings
- Note: Kits do not include sockets, hex keys or spline keys**

# Extended Sockets for Power Tools

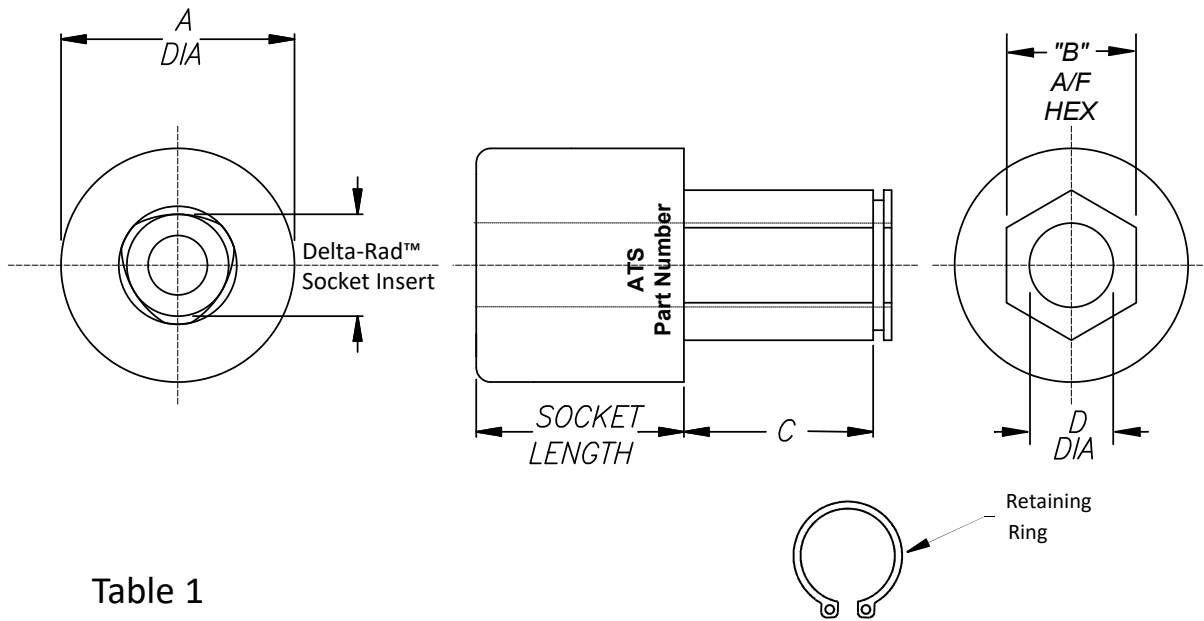


Table 1

**Tool Models:** ETL1108, ETL1129, ETL1110, ETL1111, ETL1117, ETL3108, ETL3129, ETL3110, ETL3111, ETL3118

Fastener Diameter	Socket Number	Socket Length	Socket Code	"A" Dia. Ref.	"B" Ref.	"C" Ref.	"D" Dia. Ref.	Retaining Ring
-5	463-9001	1/2"	D	0.53"				
	463-9002	1.0"	G					
	463-9004	2.0"	J	1.06"				
	463-9006	3.0"	L					
-6	463-9011	1/2"	D	0.56"	5/16"	0.48"	0.22"	096-9074
	463-9012	1.0"	G					
	463-9014	2.0"	J					
	463-9016	3.0"	L					
-8	463-9021	1/2"	D	0.66"				
	463-9022	1.0"	G					
	463-9024	2.0"	J					
	463-9026	3.0"	L					

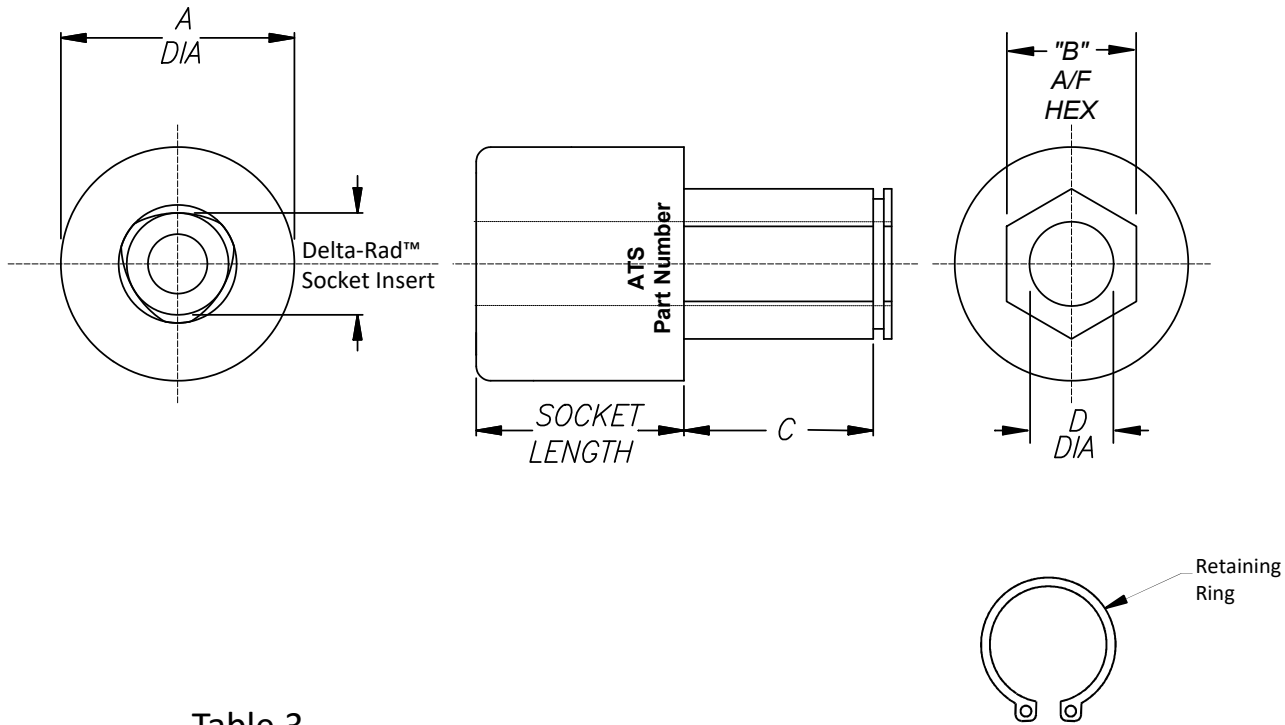
Table 2

**Tool Models:** ET1015, ET1020

Fastener Diameter	Socket Number	Socket Length	Socket Code	"A" Dia. Ref.	"B" Ref.	"C" Ref.	"D" Dia. Ref.	Retaining Ring
-10	463-9161	5/8	E	0.77"	7/16"	0.68"	0.31"	096-9468
	463-9162	1.0"	G					
	463-9164	2.0"	J					
	463-9166	3.0"	L					



# Extended Sockets for Power Tools

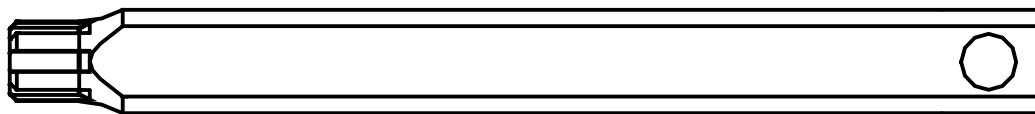


**Table 3**

**Tool Models:** ET3472A, ET3492A

Fastener Diameter	Socket Number	Socket Length	Socket Code	"A" Dia. Ref.	"B" Ref.	"C" Ref.	"D" Dia. Ref.	Retaining Ring
-10	463-9131	5/8"	E	0.77"	0.44"	0.70"	0.31"	096-9495
	463-9132	1.0"	G					
	463-9134	2.0"	J					
	463-9136	3.0"	L					
-12	463-9141	5/8"	E	0.88"	0.44"	0.70"	0.31"	096-9495
	463-9142	1.0"	G					
	463-9144	2.0"	J					
	463-9146	3.0"	L					

# Spline-Lok<sup>®</sup> keys for Power Tools



## Power Tool Spline-Lok<sup>®</sup> Keys

Table 5

**Models: ETL1108, ETL1129, ETL1110, ETL1111, ETL3108, ETL3129, ETL3110, ETL3111, ETL1115, ETL1117**

Fastener Dia.	Socket Length	Spline-Lok <sup>®</sup> Key Part Number
-5	Flush	493-9201
	1/2"	493-9001
	1.0"	493-9002
	2.0"	493-9004
	3.0"	493-9006
-6	Flush	493-9202
	1/2"	493-9011
	1.0"	493-9012
	2.0"	493-9014
	3.0"	493-9016
-8	Flush	493-9203
	1/2"	493-9021
	1.0"	493-9022
	2.0"	493-9024
	3.0"	493-9026

**Models: ET1015, ET1020**

Fastener Dia.	Socket Length	Spline-Lok <sup>®</sup> Key Part Number
-10	Flush	493-9204
	5/8"	493-9161
	1.0"	493-9162
	2.0"	493-9164
	3.0"	493-9166

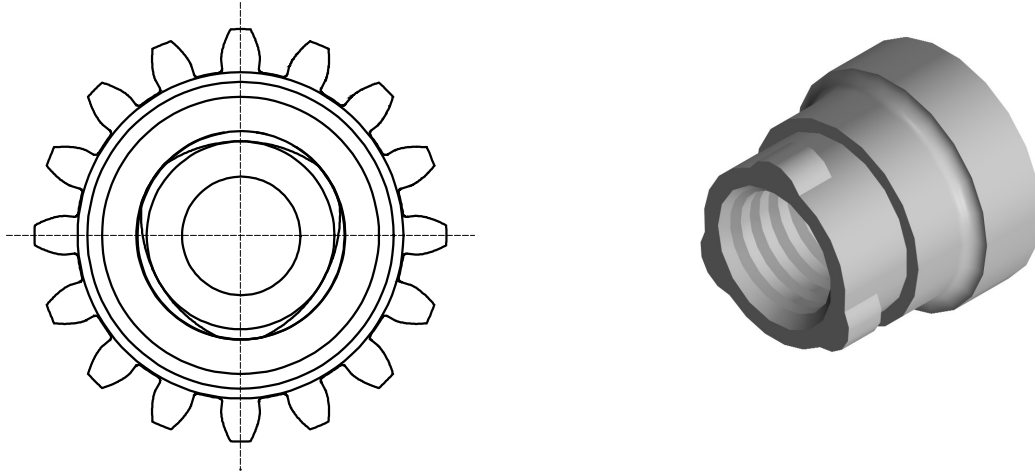
**Models: ET3100**

Fastener Dia.	Socket Length	Spline-Lok <sup>®</sup> Key Part Number
-10	5/8"	493-9111
	1.0"	493-9112
	2.0"	493-9114
	3.0"	493-9116
-12	5/8"	493-9102
	1.0"	493-9101
	2.0"	493-9104
	3.0"	493-9106

**Models: ET3472, ET3492**

Fastener Dia.	Socket Length	Spline-Lok <sup>®</sup> Key Part Number
-10	Flush	493-9204
	5/8"	493-9131
	1.0"	493-9132
	2.0"	493-9134
	3.0"	493-9136
-12	5/8"	493-9141
	1.0"	493-9142
	2.0"	493-9144
	3.0"	493-9146

# Flush Socket Gears for Power Tools



**Flush Socket Gears for Power Tools**

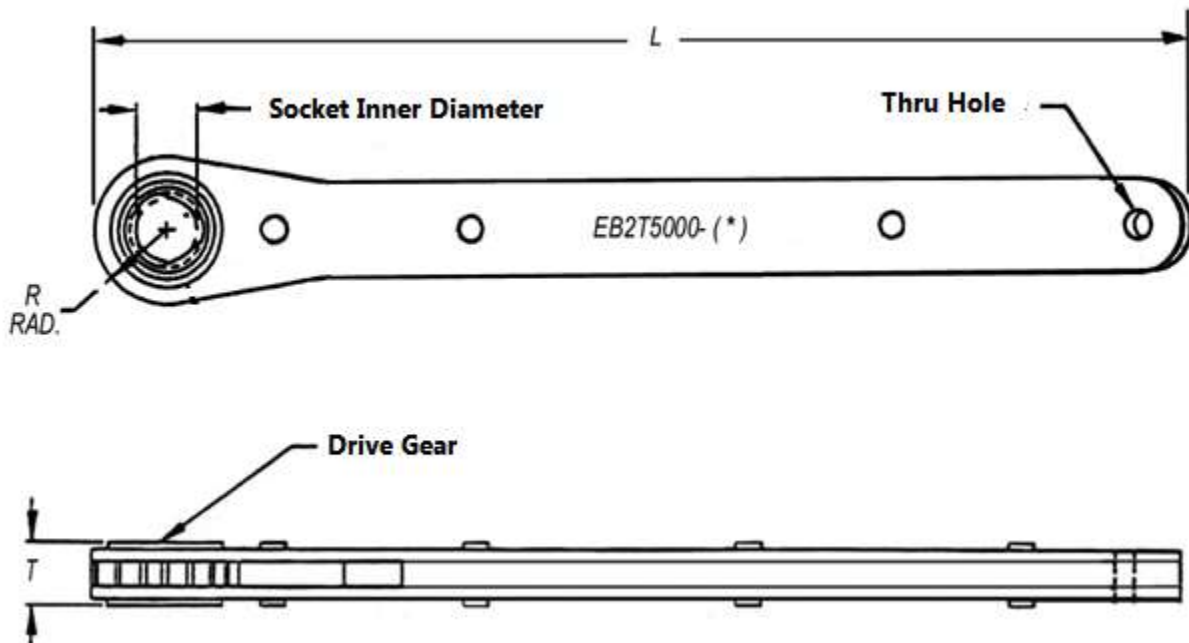
Table 4

Power Tool Model Number	Fastener Dia.	Socket Gear Part Number
ETL1110	-5	461-9008
ETL1111		
ETL3110		
ETL3111		
ETL1109/1129	-6	461-9202
ETL3109		
ETL1110	-6	461-9009
ETL1111		
ETL3110		
ETL3111		
ETL1110	-8	461-9010
ETL1111		
ETL3110		
ETL3111		
ET1015	-10	461-9011
ET1020		

## **SECTION 3**

# **Hand Installation Tools**

# Hand Ratchet Wrench



Fastener Dia.	Wrench Part Number	R REF.	T REF.	L REF.	Socket Inner Dia.
-5	EB2T5000-5	.31	.38	4.31	.2230 / .2215
-6	EB2T5000-6	.33	.38	4.31	.2470 / .2455
-8	EB2T5000-8	.39	.38	5.50	.3315 / .3300
-10	EB2T5000-10	.50	.38	5.50	.4015 / .4000
-12	EB2T5000-12	.65	.50	6.81	.4960 / .4943

Inspect Delta-Rad™ socket using EB2G2000 Gauge.

## Example of Complete Wrench Model Number:

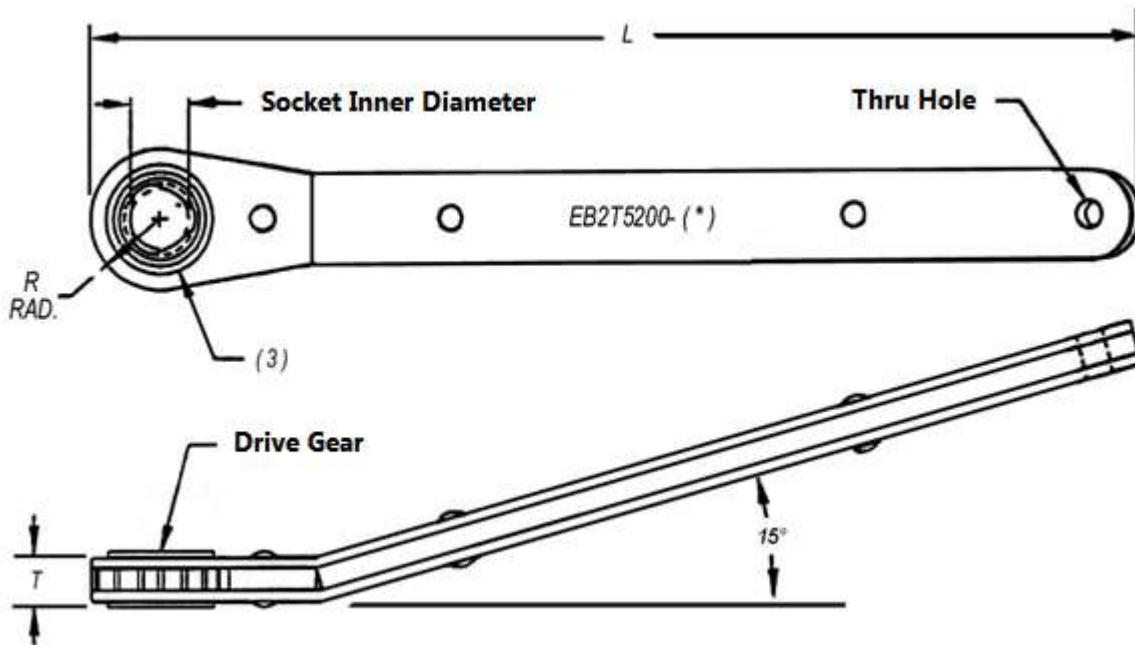
**EB2T5000 - 6**

Fastener Diameter Size  
Tool Model Number

### Note:

The nature of the installation of the Eddie-Bolt® 2 system results in a large drop in installation torque wrench forces as the installation is completed. Care should be exercised to avoid injury during manual installations as a result of this drop in resistance.

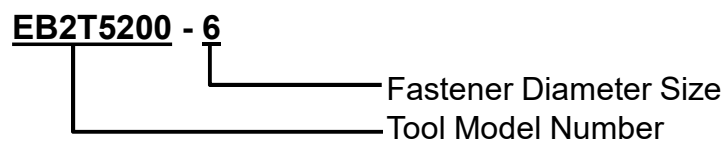
# Bent Handle Ratchet Wrench



Fastener Dia.	Wrench Part Number	R REF.	T REF.	L REF.	Socket Inner Dia.
-5	EB2T5200-5	.31	.38	4.31	.2230 / .2215
-6	EB2T5200-6	.33	.38	4.31	.2470 / .2455
-8	EB2T5200-8	.39	.38	5.50	.3315 / .3300
-10	EB2T5200-10	.50	.38	5.50	.4015 / .4000
-12	EB2T5200-12	.58	.50	6.81	.4960 / .4943

Inspect Delta-Rad™ socket using EB2G2000 Gauge.

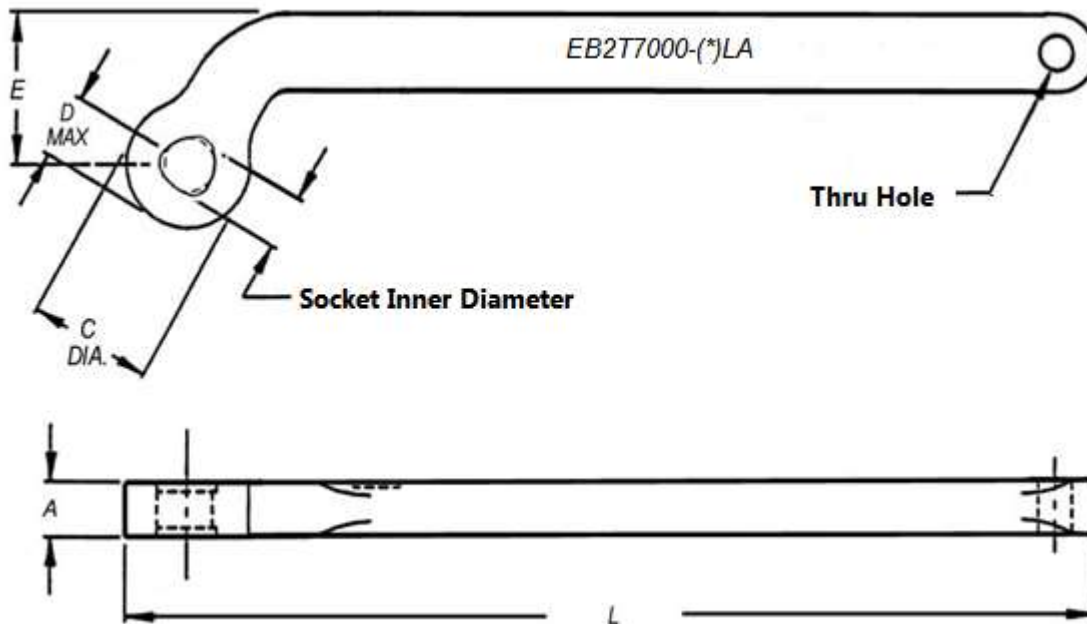
## Example of Complete Wrench Model Number:



**Note:**

The nature of the installation of the Eddie-Bolt® 2 system results in a large drop in installation torque wrench forces as the installation is completed. Care should be exercised to avoid injury during manual installations as a result of this drop in resistance.

# Offset Hand Wrench



Fastener Dia.	Wrench Part Number	A Ref.	Length Ref.	C Dia. Ref.	D Max.	E Ref.	Socket Inner Dia.
-5	EB2T7000-5LA	.26	4.5	.44	.22	.63	.2230 / .2215
-6	EB2T7000-6LA	.26	4.5	.44	.22	.63	.2470 / .2455
-8	EB2T7000-8LA	.31	5.5	.54	.27	.79	.3315 / .3300
-10	EB2T7000-10LA	.32	5.5	.70	.35	.99	.4015 / .4000
-12	EB2T7000-12LA	.36	7.5	.80	.40	1.17	.4960 / .4943

Inspect Delta-Rad™ socket using EB2G2000 Gauge.

Example of Complete Wrench Model Number:

**EB2T7000 – 6LA**

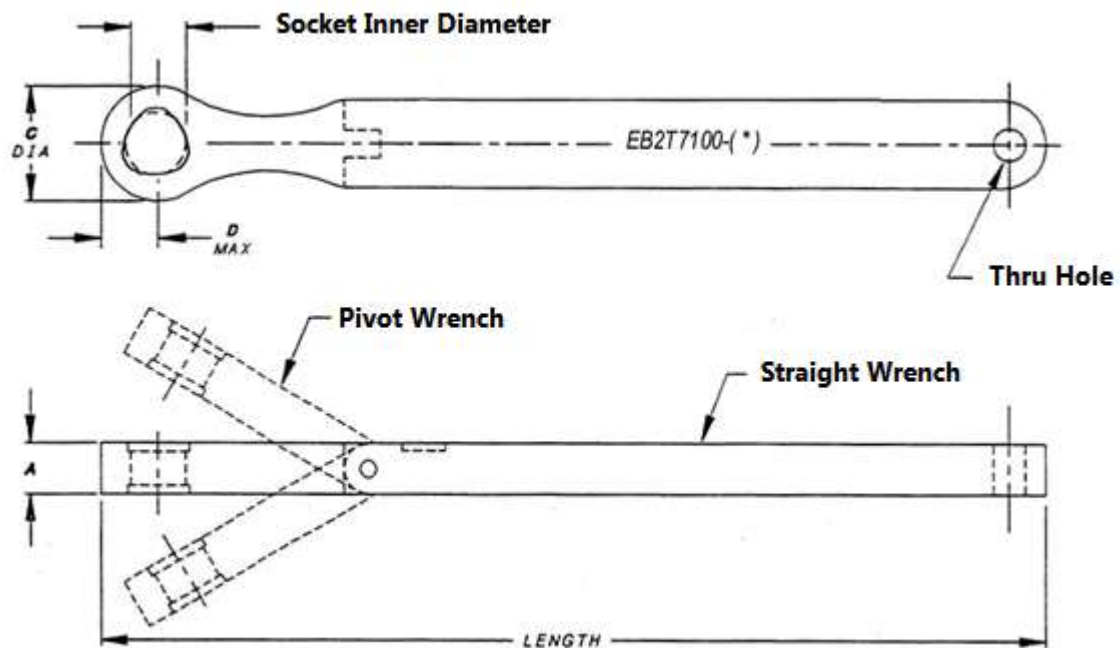


Fastener Diameter Size  
Tool Model Number

**Note:**

The nature of the installation of the Eddie-Bolt® 2 system results in a large drop in installation torque wrench forces as the installation is completed. Care should be exercised to avoid injury during manual installations as a result of this drop in resistance.

# Pivot Handle Wrench



Fastener Dia.	Straight Wrench Part Number	Pivot Wrench Part Number	A Ref.	Length Ref.	C Dia. Ref.	D Max.	Socket Inner Dia.
-5	EB2T7100-5LA	EB2T7100-5PLA	.23	4.5	.44	.22	.2230 / .2215
-6	EB2T7100-6LA	EB2T7100-6PLA	.23	4.5	.44	.22	.2470 / .2455
-8	EB2T7100-8LA	EB2T7100-8PLA	.26	5.5	.54	.27	.3315 / .3300
-10	EB2T7100-10LA	EB2T7100-10PLA	.32	5.5	.70	.35	.4015 / .4000
-12	EB2T7100-12LA	EB2T7100-12PLA	.36	7.5	.80	.40	.4960 / .4943

Inspect Delta-Rad™ socket using EB2G2000 Gauge.

## Example of Complete Wrench Model Number:

**EB2T7100 - 6LA**

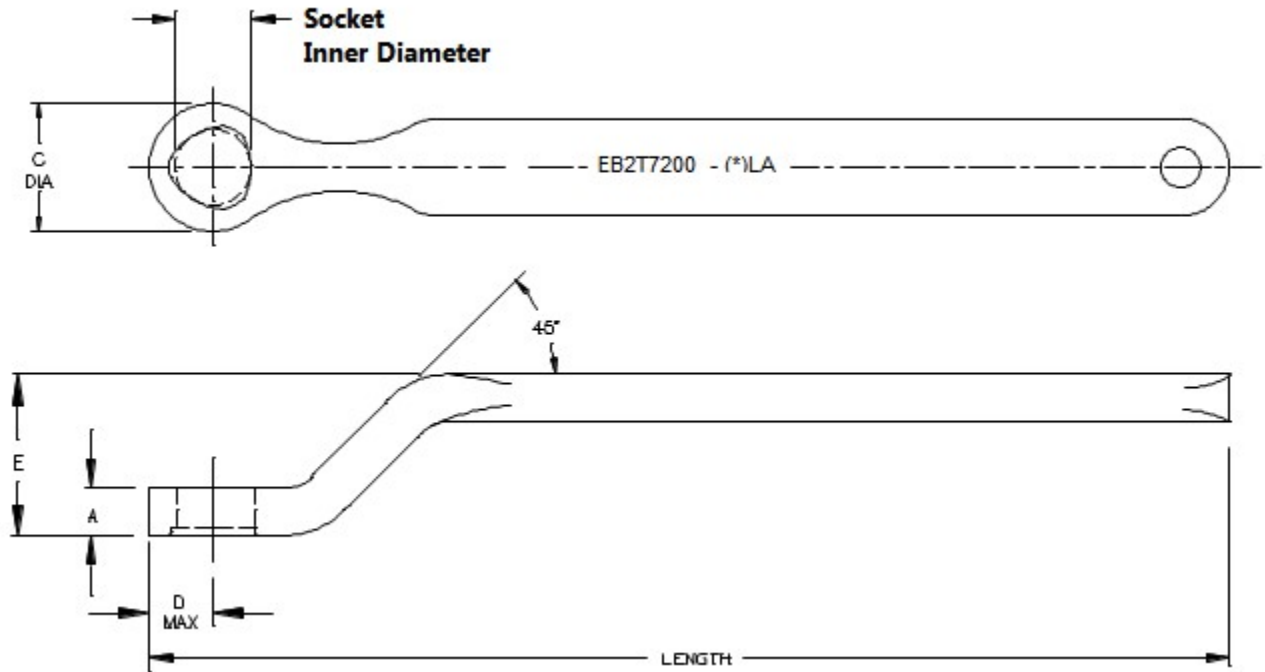
Fastener Diameter Size  
Tool Model Number

**Note:**

The nature of the installation of the Eddie-Bolt® 2 system results in a large drop in installation torque wrench forces as the installation is completed. Care should be exercised to avoid injury during manual installations as a result of this drop in resistance.



# 45° Offset Hand Ratchet Wrench

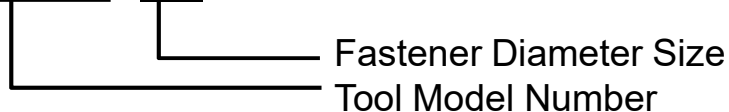


Fastener Dia.	Offset Wrench Part Number	A Ref.	C Dia. Ref.	D Max.	Length Ref.	E Ref.	Socket Inner Dia.
-5	EB2T7200-5LA	.21	.44	.22	4.5	.80	.2230 / .2215
-6	EB2T7200-6LA	.21	.44	.22	4.5	.80	.2470 / .2455
-8	EB2T7200-8LA	.26	.54	.27	5.5	.84	.3315 / .3300
-10	EB2T7200-10LA	.27	.70	.35	5.5	.88	.4015 / .4000
-12	EB2T7200-12LA	.31	.80	.40	7.5	1.02	.4960 / .4943

Inspect Delta-Rad™ socket using EB2G2000 Gauge.

## Example of Complete Wrench Model Number:

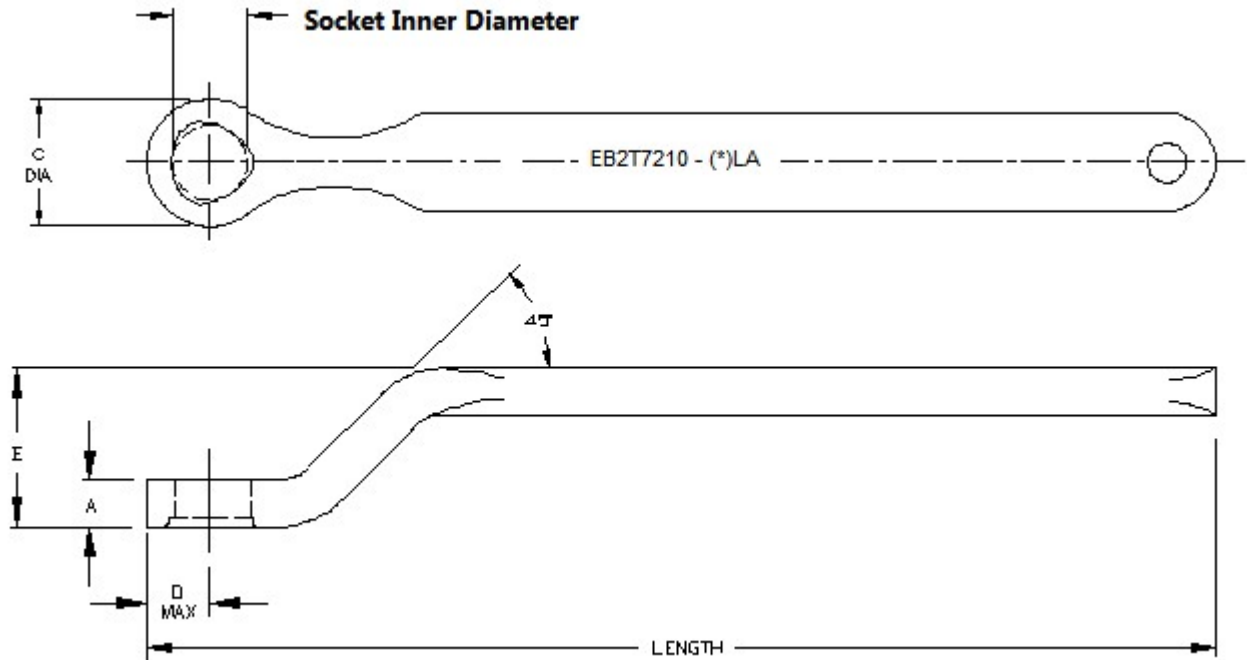
**EB2T7200 - 6LA**



**Note:**

The nature of the installation of the Eddie-Bolt® 2 system results in a large drop in installation torque wrench forces as the installation is completed. Care should be exercised to avoid injury during manual installations as a result of this drop in resistance.

# 45° Offset Hand Wrench

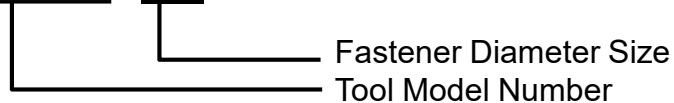


Fastener Dia.	Offset Wrench Part Number	A Ref.	C Dia. Ref.	D Max.	Length Ref.	E Ref.	Socket Inner Dia.
-5	EB2T7210-5LA	.21	.44	.22	4.5	.80	.2230 / .2215
-6	EB2T7210-6LA	.21	.44	.22	4.5	.80	.2470 / .2455
-8	EB2T7210-8LA	.26	.54	.27	5.5	.84	.3315 / .3300
-10	EB2T7210-10LA	.27	.70	.35	5.5	.88	.4015 / .4000
-12	EB2T7210-12LA	.31	.80	.40	7.5	1.02	.4960 / .4943

Inspect Delta-Rad™ socket using EB2G2000 Gauge.

## Example of Complete Wrench Model Number:

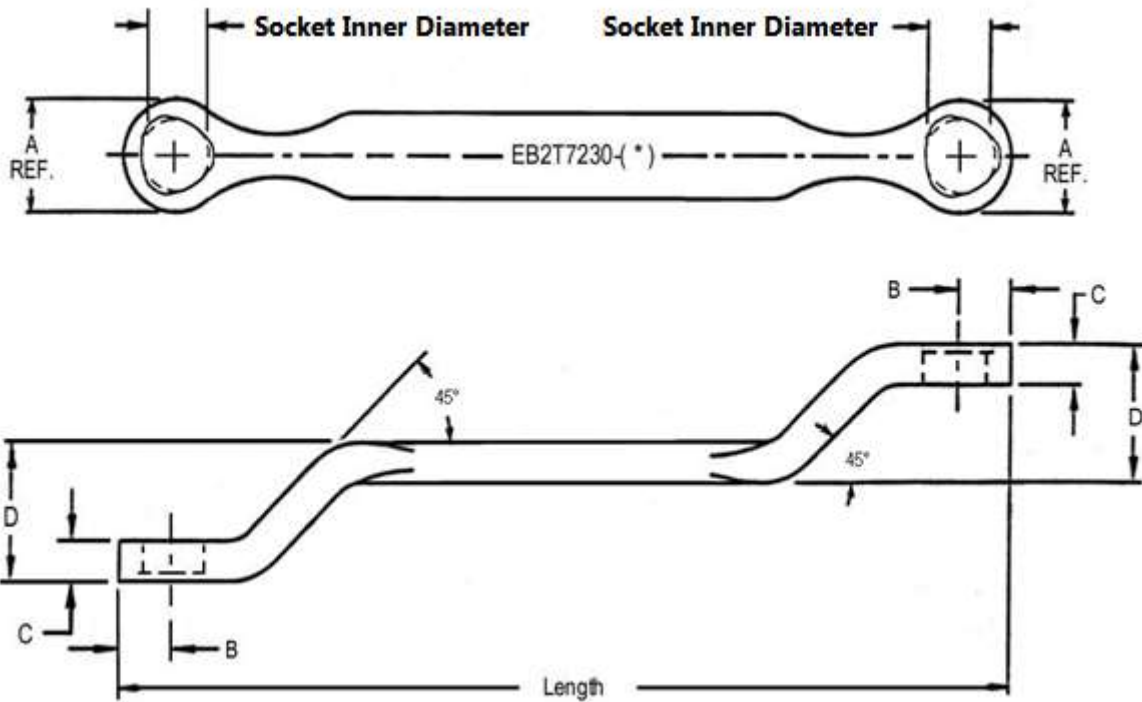
**EB2T7210 - 6LA**



### Note:

The nature of the installation of the Eddie-Bolt® 2 system results in a large drop in installation torque wrench forces as the installation is completed. Care should be exercised to avoid injury during manual installations as a result of this drop in resistance.

# Double Ended 45° Offset Hand Wrench



Fastener Dia.	Offset Wrench Part Number	A Dia. Ref.	B Max.	C Ref.	D Ref.	Length Ref.	Socket Inner Dia.
-5	EB2T7230-5LA	.44	.22	.21	.80	5.5	.2230 / .2215
-6	EB2T7230-6LA	.44	.22	.21	.80	5.5	.2470 / .2455
-8	EB2T7230-8LA	.54	.27	.26	.84	6.9	.3315 / .3300
-10	EB2T7230-10LA	.70	.35	.27	.88	6.9	.4015 / .4000
-12	EB2T7230-12LA	.80	.40	.31	1.02	8.7	.4960 / .4943

Inspect Delta-Rad™ socket using EB2G2000 Gauge.

## Example of Complete Wrench Model Number:

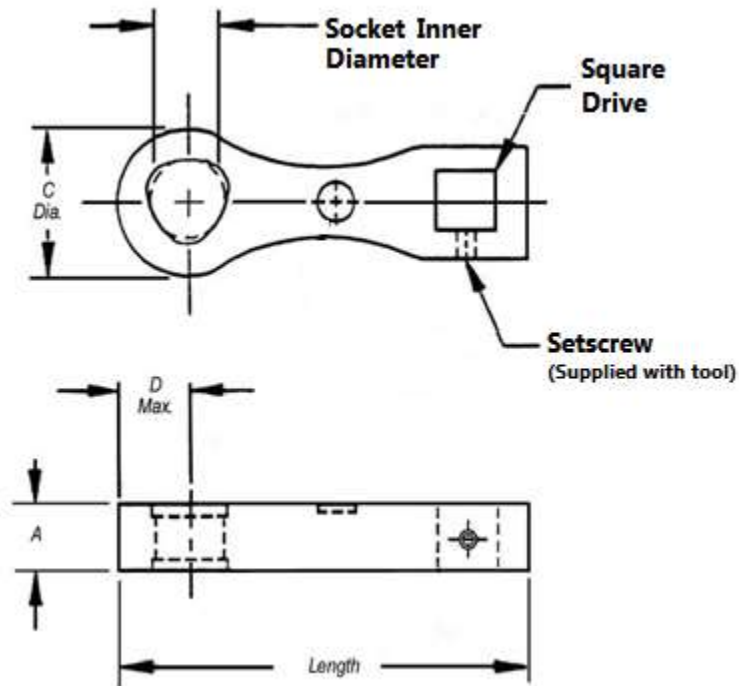
**EB2T7230 - 6LA**

Fastener Diameter Size  
Tool Model Number

### Note:

The nature of the installation of the Eddie-Bolt® 2 system results in a large drop in installation torque wrench forces as the installation is completed. Care should be exercised to avoid injury during manual installations as a result of this drop in resistance.

# Crowfoot Hand Ratchet Wrench

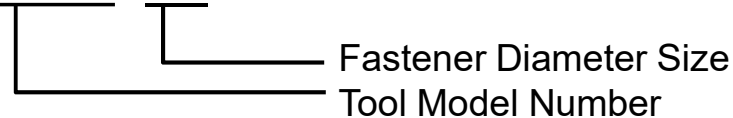


Fastener Dia.	Offset Wrench Part Number	A Ref.	Length Ref.	C Dia. Ref.	D Max.	Socket Diameter	Square Drive Size Ref.
-5	EB2T7300-5LA	.23	1.54	.44	.22	.2230 / .2215	1/4
-6	EB2T7300-6LA	.23	1.71	.44	.22	.2470 / .2455	1/4
-8	EB2T7300-8LA	.26	2.11	.54	.27	.3315 / .3300	1/4
-10	EB2T7300-10LA	.27	2.58	.70	.35	.4015 / .4000	3/8
-12	EB2T7300-12LA	.31	3.19	.80	.40	.4960 / .4943	3/8

Inspect Delta-Rad™ Driver using EB2G2000 Gauge.

## Example of Complete Wrench Model Number:

**EB2T7300 - 6LA**



### Note:

The nature of the installation of the Eddie-Bolt® 2 system results in a large drop in installation torque wrench forces as the installation is completed. Care should be exercised to avoid injury during manual installations as a result of this drop in resistance.

# Roller Wrenches



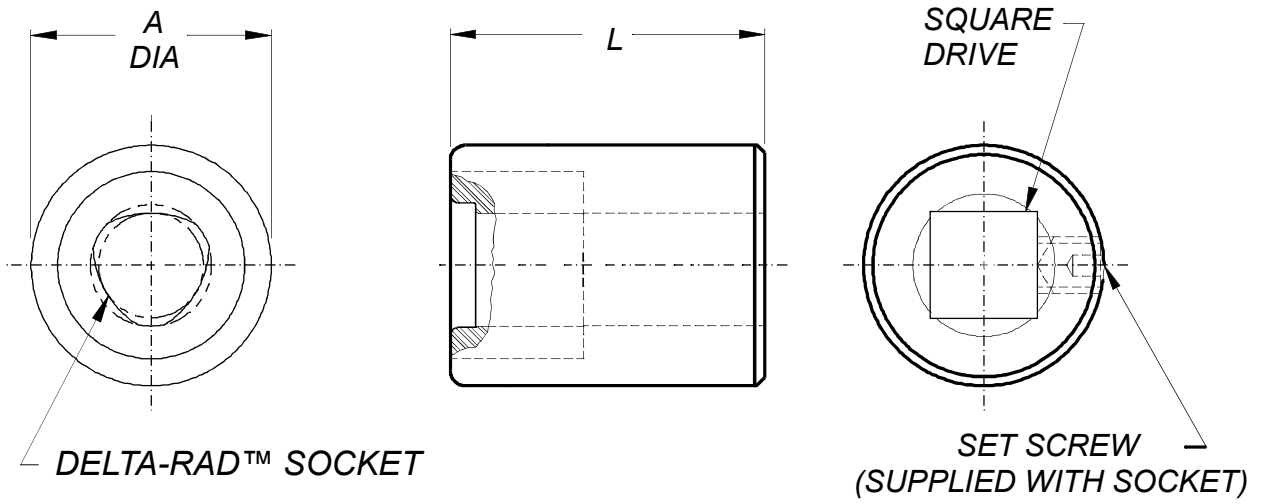
Fastener Dia.	Roller Wrench Part Number	A Ref.	Handle Length Ref.	C Dia. Ref.	D Max.	Socket Inner Dia.	
<b>Integrated Sockets, Roller Wrenches</b>							
-5	RWEB40-5	1.1	6.0	.57	.28	.2230 / .2215	
-6	RWEB40-6	1.1	6.0	.57	.28	.2470 / .2455	
-6	RWEB80-6	1.6	6.0	.57	.28	.2470 / .2455	
<b>Square Drive Roller Wrenches</b> (see note 2 below)						<b>Square Drive</b>	<b>Rev.</b>
-5	RWB100-40	1.3	6.0	.57	.28	1/4"	G
-5, -6	RWB100-80	1.8	6.0	.57	.28	1/4"	
-8	RWB100-130-312	2.0	7.4	.87	.44	5/16"	
-10, -12	RWB100-400	2.0	8.0	1.5	.74	3/8"	

1. Use EB2T4020 series sockets with RWB100 series roller wrenches
2. Inspect Delta-Rad™ socket using EB2G2000 Gauge

**Note:**

The nature of the installation of the Eddie-Bolt® 2 system results in a large drop in installation torque wrench forces as the installation is completed. Care should be exercised to avoid injury during manual installations as a result of this drop in resistance.

# Sockets for Roller Wrenches



Nut Dia	Socket Part Number	"A" Dia. Ref.	Socket Inner Dia.	"L" Ref.	Ext'd Length	Square Drive Ref.	REV.
-5	EB2T4020-5	0.53	.2230 / .2215	0.74	Standard	1/4"	J
-5	EB2T4020-5-1	0.53	.2230 / .2215	1.74	1.0"	1/4"	J
-5	EB2T4020-5-3	0.53	.2230 / .2215	3.74	3.0"	1/4"	J
-6	EB2T4020-6	0.56	.2470 / .2455	0.74	Standard	1/4"	J
-6	EB2T4020-6-1	0.56	.2470 / .2455	1.74	1.0"	1/4"	J
-6	EB2T4020-6-3	0.56	.2470 / .2455	3.74	3.0"	1/4"	J
-8	EB2T4020-8-2	0.72	.3315 / .3300	0.79	Standard	5/16"	J
-8	EB2T4020-8-2-1	0.72	.3315 / .3300	1.79	1.0"	5/16"	J
-8	EB2T4020-8-2-2	0.72	.3315 / .3300	2.79	2.0"	5/16"	J
-8	EB2T4020-8-2-3	0.72	.3315 / .3300	3.79	3.0"	5/16"	J
-10	EB2T4020-10	0.77	.4015 / .4000	1.03	Standard	3/8"	J
-10	EB2T4020-10-1	0.77	.4015 / .4000	2.03	1.0"	3/8"	J
-10	EB2T4020-10-3	0.77	.4015 / .4000	4.03	3.0"	3/8"	J
-12	EB2T4020-12	0.89	.4960 / .4943	1.24	Standard	3/8"	J
-12	EB2T4020-12-1	0.89	.4960 / .4943	2.24	1.0"	3/8"	J
-12	EB2T4020-12-3	0.89	.4960 / .4943	4.24	3.0"	3/8"	J

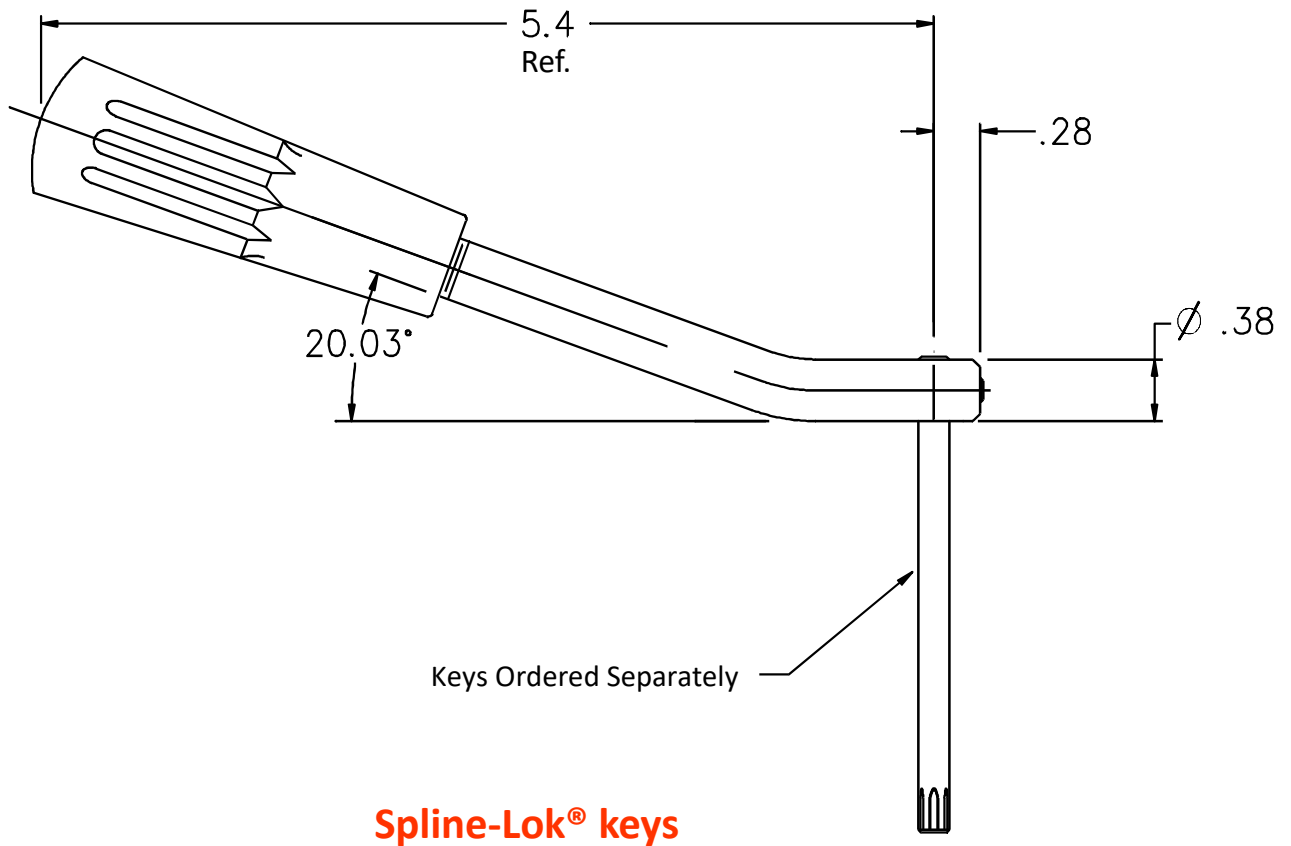
Material:      Insert: Carbide  
                     Body: Alloy Steel, Heat Treated

Finish:         Insert: None  
                     Body: Black Oxide

**Note:**

The nature of the installation of the Eddie-Bolt® 2 system results in a large drop in installation torque wrench forces as the installation is completed. Care should be exercised to avoid injury during manual installations as a result of this drop in resistance.

# Spline-Lok<sup>®</sup> Keys & Handles

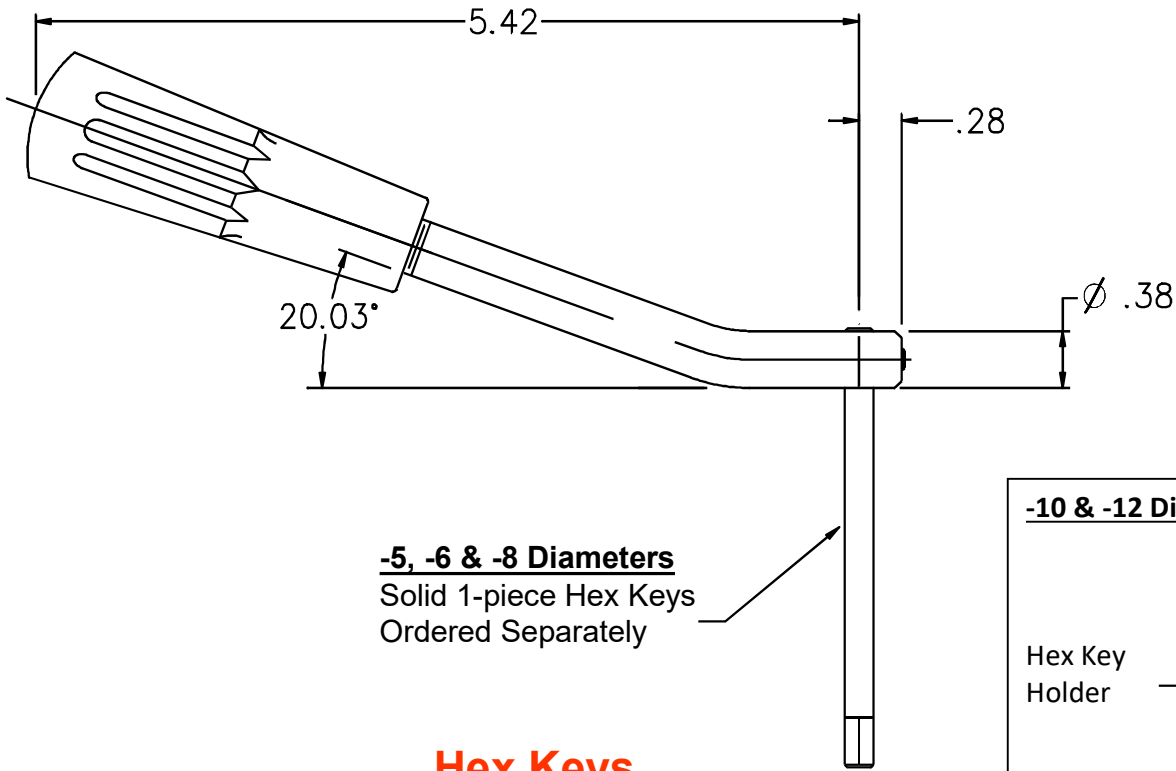


Fastener Diameter	Handle	Spline-Lok <sup>®</sup> keys		
		.825 Long	2.5" Long	5.0" Long
-5	SPKH-5	093-9197	093-9198	093-9371
-6	SPKH-6	093-9199	093-9200	093-9372
-8	SPKH-8	093-9201	093-9202	093-9373
-10	SPKH-10	093-9203	093-9204	093-9374
-12	SPKH-12	093-9205	093-9206	093-9375

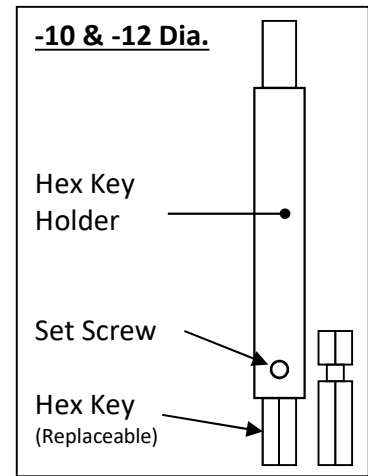
## How to Order:

1. Order Handle Assembly Separately: SPKH-(\*)
2. Order Spline-Lok<sup>®</sup> keys Separately

# Hex Keys & Handles



## Hex Keys



Nut Dia.	Handle	Hex Key Size	Hex Keys Choices	
			.825 Long	2.5" Long
-5	SPKH-6	.078 (5/64")	093-9322	093-9323
-6	SPKH-6	.078 (5/64")	093-9322	093-9323
-8	SPKH-8	.093 (3/32")	093-9324	093-9325

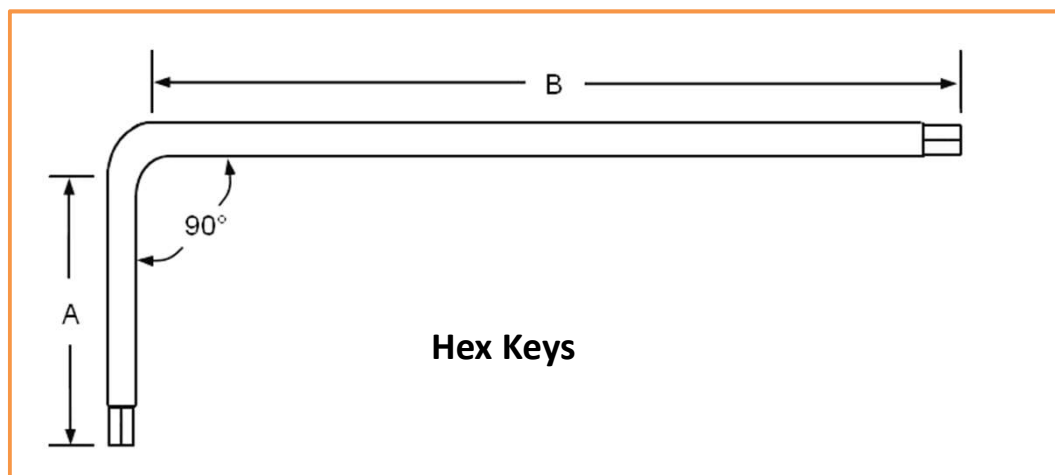
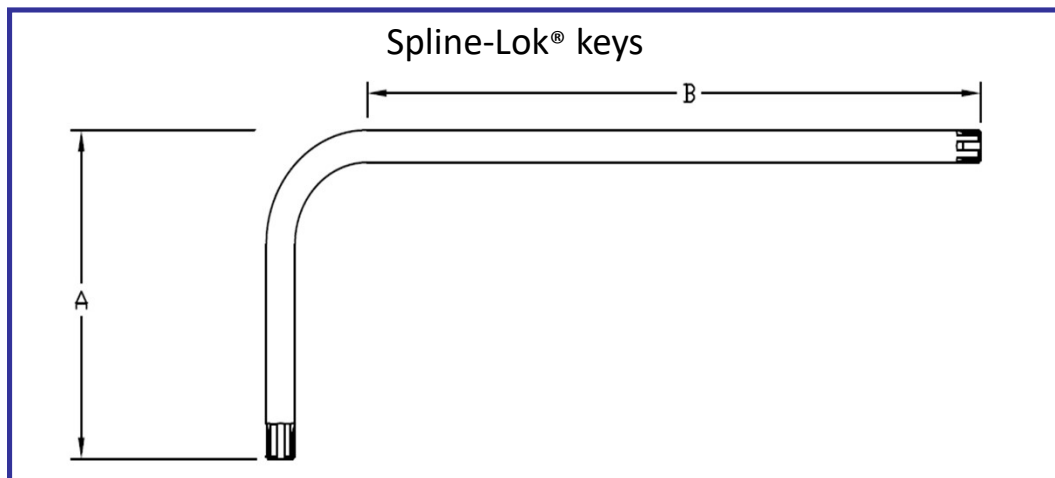
Nut Dia.	Handle	Hex Key Size	Hex Key Holders		Hex Key	Set Screw
			.825 Long	2.5" Long		
-10	SPKH-10	.125 (1/8")	016-9867	016-9868	093-9008	065-9031
-12	SPKH-12	.156 (5/32")	016-9869	016-9870	093-9032	065-9031
-14	SPKH-14	.187 (3/16")	016-9xxx	016-9xxx	093-9096	065-9031

### How to Order:

1. Order Handle Assembly Separately: SPKH-(\*)
2. Order Hex Key Holder, Hex Keys & Set Screws Separately



# Spline-Lok<sup>®</sup> keys



Caution: Keys are to be used with hand installation tools only

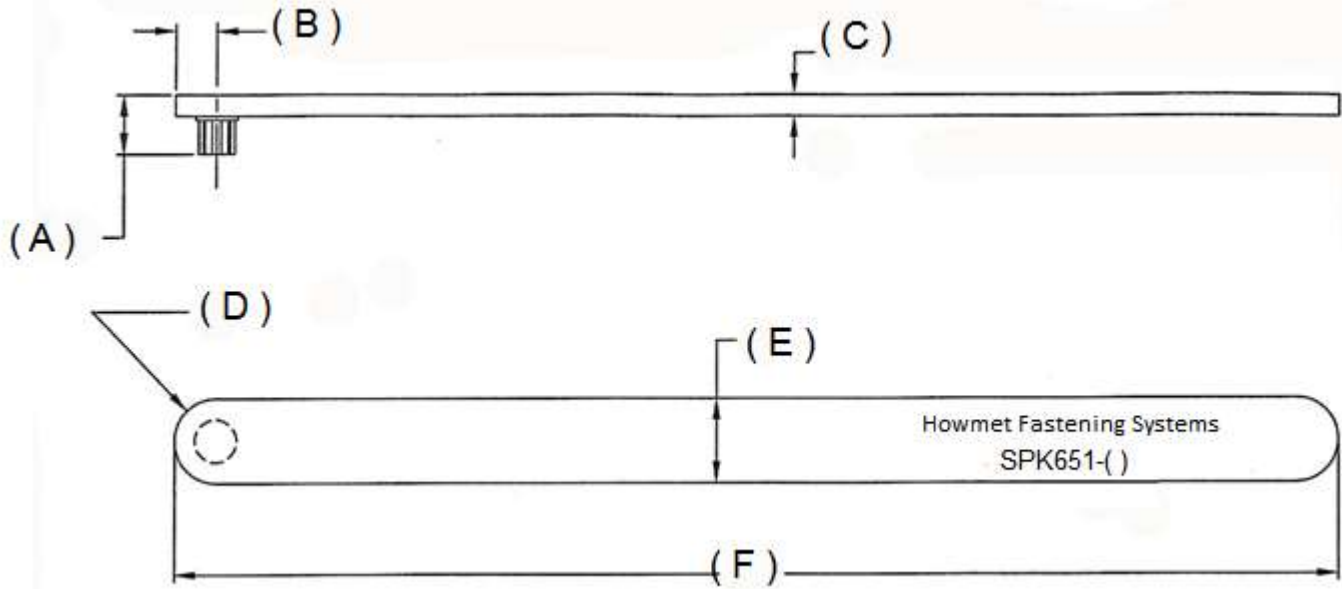
## Spline-Lok<sup>®</sup> keys

Part Number	Dia.	"A" Ref.	"B" Ref.
SPK650-5-1	-5	0.80	3.50
SPK650-5-2	-5	1.04	3.50
SPK650-5-4	-5	2.51	2.77
SPK650-6-1	-6	0.80	3.50
SPK650-6-2	-6	1.07	3.50
SPK650-6-4	-6	1.75	3.50
SPK650-8-1	-8	0.98	3.40
SPK650-8-2	-8	1.23	3.60
SPK650-8-3	-8	0.56	3.78
SPK650-8-4	-8	1.75	3.40
SPK650-10-1	-10	1.25	3.22
SPK650-10-2	-10	1.00	3.75
SPK650-12-1	-12	1.25	3.5

## Hex Keys

Hex Key Part Number	Screw Dia.	Hex Size	"A" Ref. (inches)	"B" Ref. (inches)
HK650-078-1	-5, -6	5/64" (.078)	0.50	3.20
HK650-078-2	-5, -6	5/64" (.078)	0.75	3.20
HK650-078-3	-5, -6	5/64" (.078)	2.09	4.45
HK650-094-1	-8	3/32" (.094)	0.50	3.50
HK650-094-2	-8	3/32" (.094)	0.75	3.25
HK650-094-3	-8	3/32" (.094)	2.09	4.45
HK650-125-4	-10	1/8" (.125)	1.25	5.25
HK650-125-3	-10	1/8" (.125)	2.40	4.10
HK650-156-3	-12	5/32" (.156)	2.40	4.10
HK650-156-4	-12	5/32" (.156)	1.25	5.25

# Spline-Lok<sup>®</sup> keys

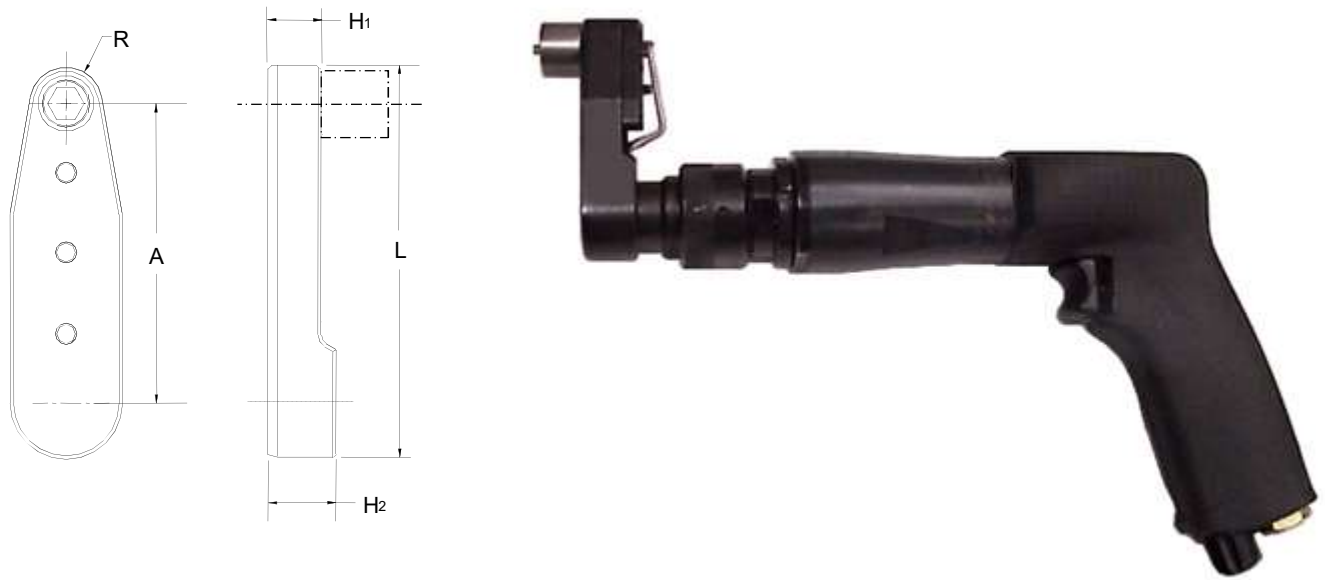


Fastener Diameter	WRENCH PART NUMBER	A REF	B REF + <sup>.000</sup> - <sup>.015</sup>	C REF	D REF	E REF	F REF
-5	SPK651-5	.250	.156	.12	FULL RAD.	.31	4.0
-6	SPK651-6	.275	.156	.12	FULL RAD.	.31	4.0
-8	SPK651-8	.275	.156	.12	FULL RAD.	.31	4.0
-10	SPK651-10	.310	.250	.12	FULL RAD.	.50	8.0
-10-1	SPK651-10-1	.500	.250	.12	FULL RAD.	.50	8.0
-12	SPK651-12	.350	.250	.12	FULL RAD.	.50	8.0

## **SECTION 4**

# **Removal Tools**

# Removal Power Tools

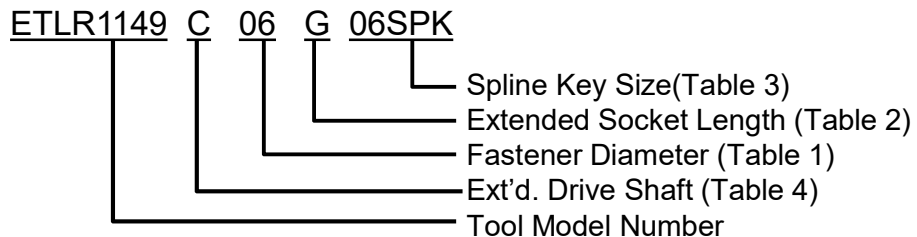


Model Number	No. of Gears	A	H <sub>1</sub>	H <sub>2</sub>	L	R
<b>ETLR1149</b>	4	1.96 [49.8mm]	.47 [11.9mm]	.61 [15.4mm]	2.81 [71.4mm]	.35 [8.8mm]

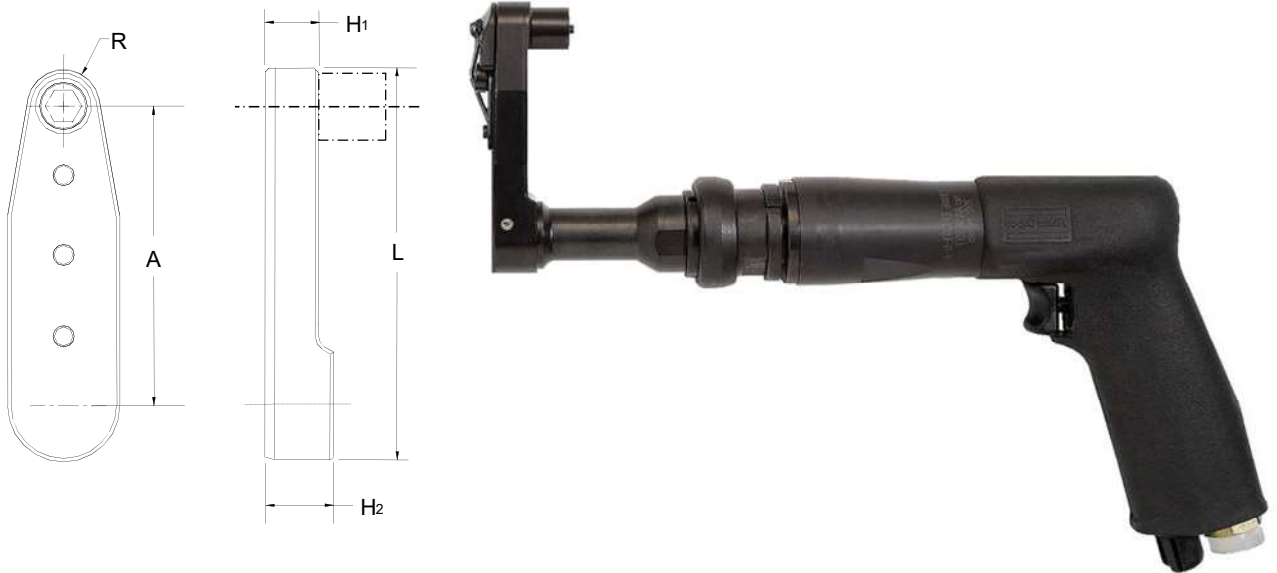
This removal socket tool runs in a counter-clockwise direction to remove Eddie-Bolt® 2 fasteners. Tool is also equipped with a Spline-Lok® key to keep the pin from turning during the nut removal process.

Table 1 Fastener Diameter		Table 2 Ext'd.Socket Length		Table 3 Spline Keys		Table 4 Drive Shaft Extended Length		
Dash	Diameter	Code	Extension	Code	Size	Code	Length	Index Unit
05	5/32"	D	1/2"	05SPK	5/32" Dia. Spline Bit	A	-	With
06	3/16"	G	1.0"	06SPK	3/16" Dia. Spline Bit	C	2.0"	With
08	1/4"	J	2.0"	08SPK	1/4" Dia. Spline Bit			

Example of Complete Tool Model Number:



# Removal Power Tools

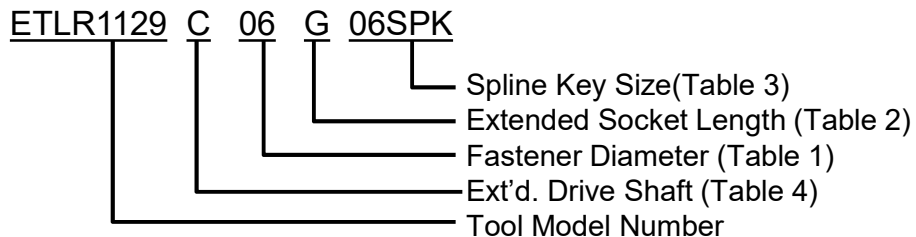


Model Number	No. of Gears	A	H <sub>1</sub>	H <sub>2</sub>	L	R
<b>ETLR1129</b>	5	2.68 [68.1mm]	.47 [11.9mm]	.61 [15.4mm]	3.53 [89.7mm]	.35 [8.8mm]

This removal socket tool runs in a counter-clockwise direction to remove Eddie-Bolt® 2 fasteners. Tool is also equipped with a Spline-Lok® key to keep the pin from turning during the nut removal process.

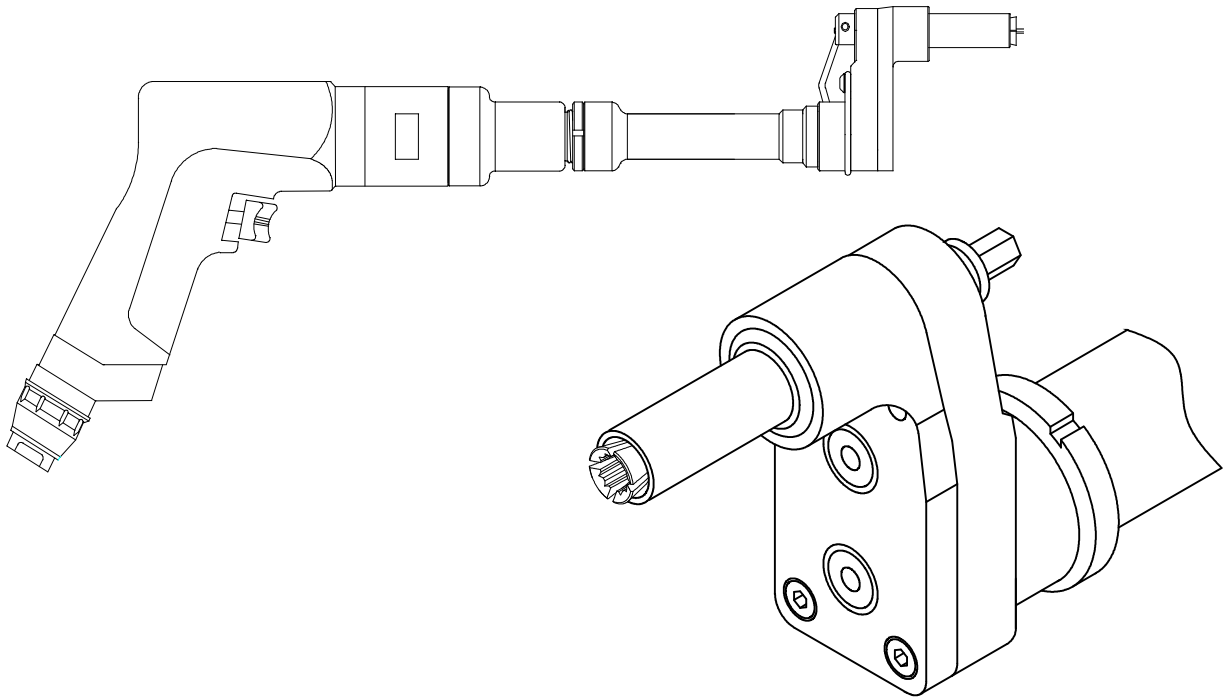
Table 1 Fastener Diameter		Table 2 Ext'd.Socket Length		Table 3 Spline Keys		Table 4 Drive Shaft Extended Length		
Dash	Diameter	Code	Extension	Code	Size	Code	Length	Index Unit
05	5/32"	D	1/2"	05SPK	5/32" Dia. Spline Bit	A	-	With
06	3/16"	G	1.0"	06SPK	3/16" Dia. Spline Bit	C	2.0"	With
08	1/4"	J	2.0"	08SPK	1/4" Dia. Spline Bit			

Example of Complete Tool Model Number:



# Removal Power Tools

Basic Tool Model Number: ETR1000B  
 Available for: -5, -6, -8 diameter fasteners

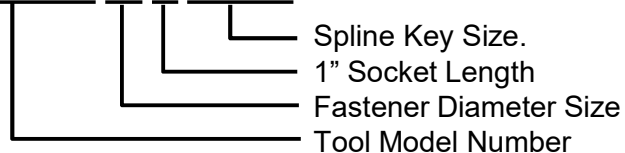


**Not intended for new procurement**

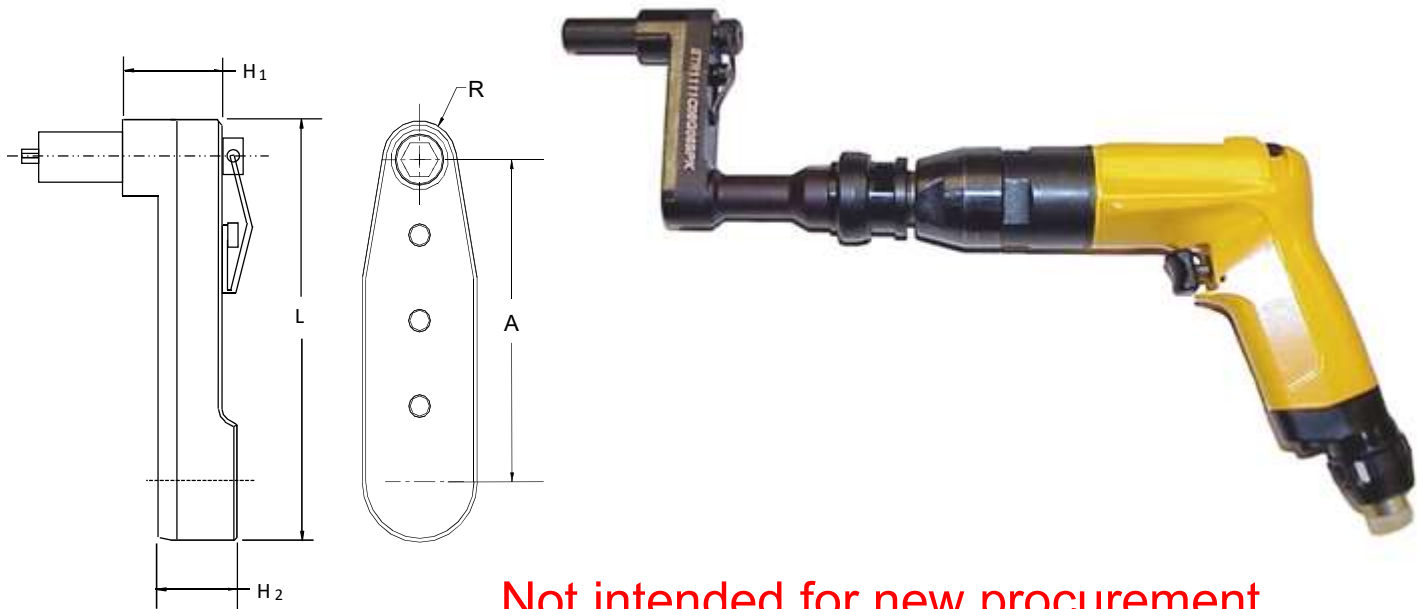
Table 1 Fastener Diameter		Table 2 Ext'd.Socket Length (Table 1, Accessories)		Table 3 Spline Keys (See Table 5, Accessories)	
Dash	Diameter	Code	Extension	Code	Size
05	5/32"	G	1.0"	05SPK	5/32" Dia. Spline Bit
06	3/16"	J	2.0"	06SPK	3/16" Dia. Spline Bit
08	1/4"	L	3.0"	08SPK	1/4" Dia. Spline Bit

**Example of Complete Tool Model Number:**

**ETR1000B 08 G 08SPK**



# Removal Power Tools

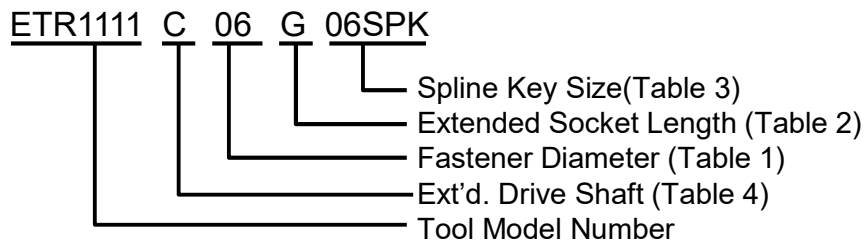


Not intended for new procurement

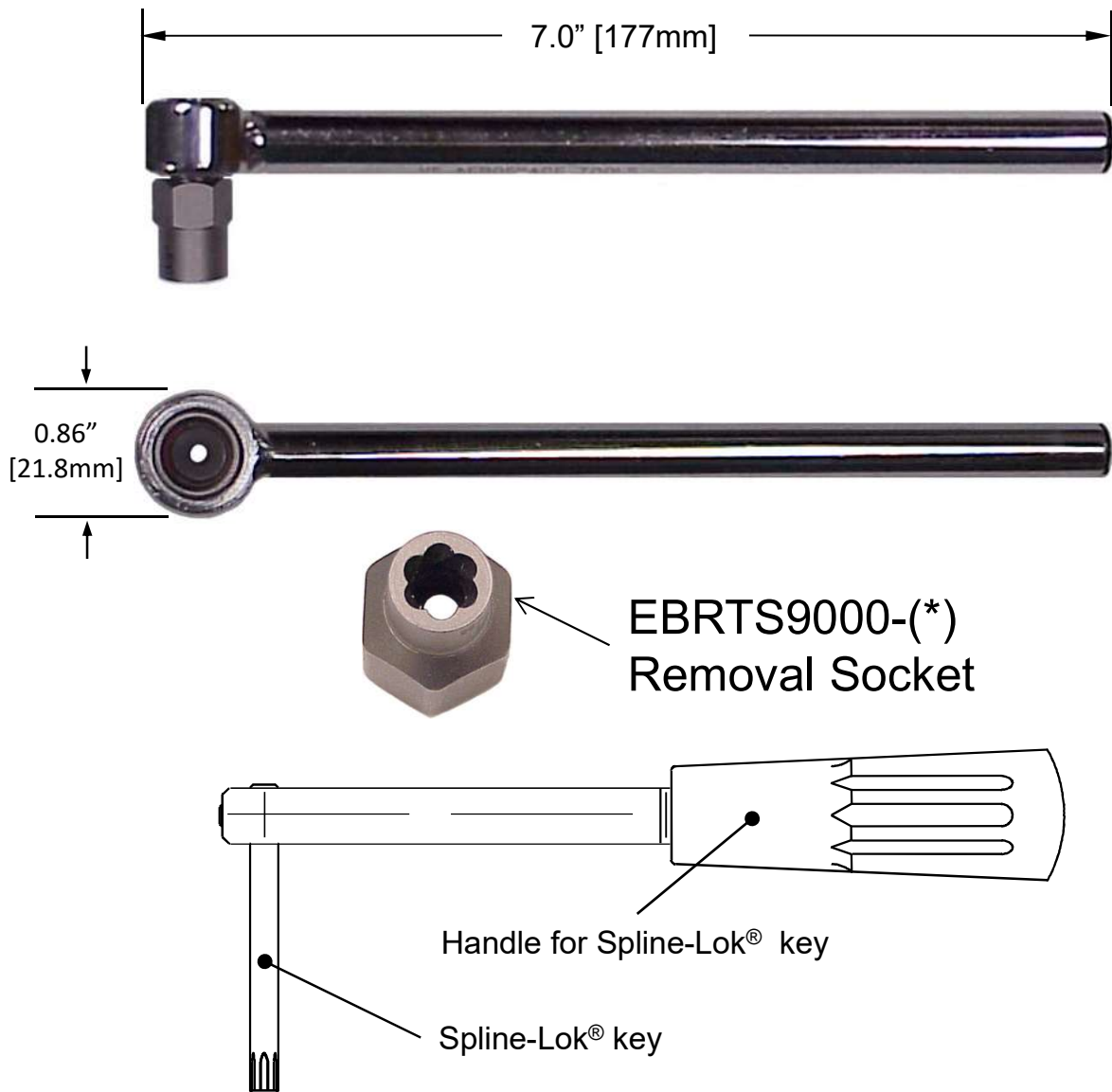
Model Number	No. of Gears	A	H <sub>1</sub>	H <sub>2</sub>	L	R
<b>ETR1111</b>	5	2.75 [69.9mm]	.67 [17.02mm]	.75 [18.92mm]	3.68 [93.3mm]	.43 [10.8mm]

Table 1 Fastener Diameter		Table 2 Ext'd.Socket Length		Table 3 Spline Keys		Table 4 Drive Shaft Extended Length		
Dash	Diameter	Code	Extension	Code	Size	Code	Length	Index Unit
05	5/32"	G	1.86"	05SPK	5/32" Dia. Spline Bit	A	-	With
06	3/16"			06SPK	3/16" Dia. Spline Bit	B	-	Without
08	1/4"			08SPK	1/4" Dia. Spline Bit	C	2.0"	With
						D	2.0"	Without
						G	6.0"	With
						H	6.0"	Without

Example of Complete Tool Model Number:



# Removal Sockets and Roller Wrenches



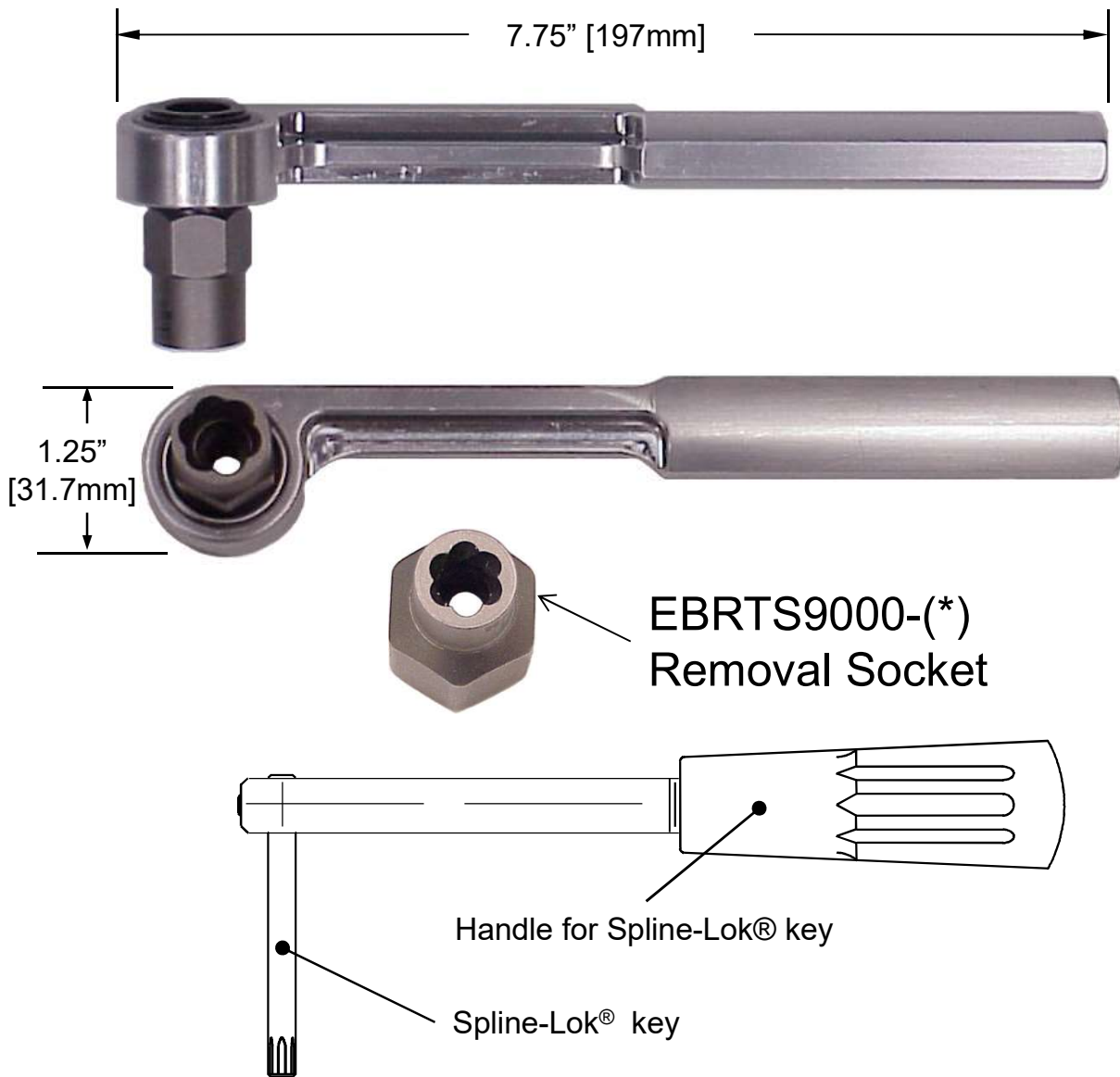
## Roller Wrench Removal Tools for Eddie-Bolt® 2 nuts

Fastener Dia.	Roller Wrench	Removal Socket	Spline Key	Handle for Spline Key
-5	EBRT9001	EBRTS9000-5	093-9198	SPKH-5S
-6	EBRT9001	EBRTS9000-6	093-9200	SPKH-6S

Note: EBRT9001 reverse roller wrench has a 3/8" square drive



# Removal Sockets and Roller Wrenches

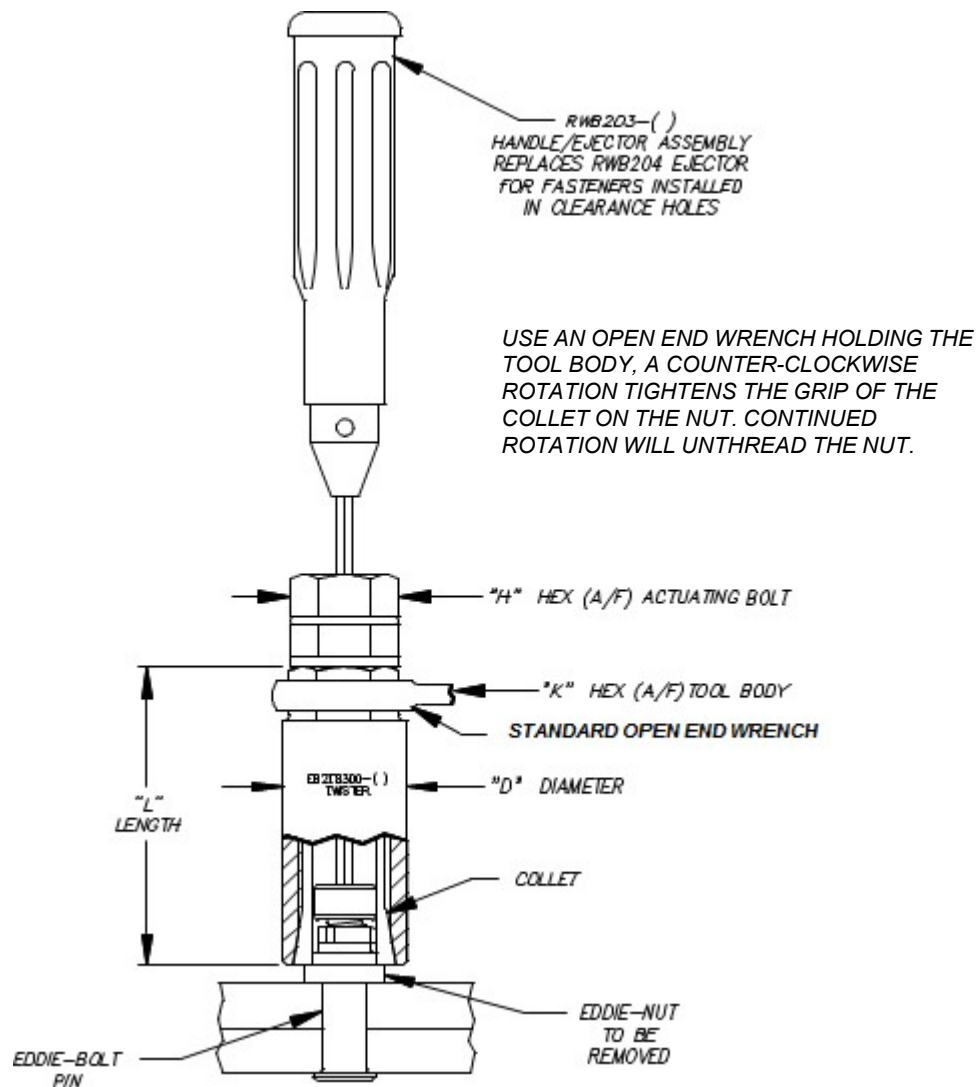


## Roller Wrench Removal Tools for Eddie-Bolt® 2 nuts

Fastener Dia.	Roller Wrench	Removal Socket	Spline Key	Handle for Spline Key
-8	EBRT9000	EBRTS9000-8	093-9202	SPKH-8S
-10	EBRT9000	EBRTS9000-10	093-9204	SPKH-10S
-12	EBRT9000	EBRTS9000-12	093-9206	SPKH-12S

Note: EBRT9000 reverse roller wrench has a 3/8" square drive

# Hand Removal Tool with Spline Keys



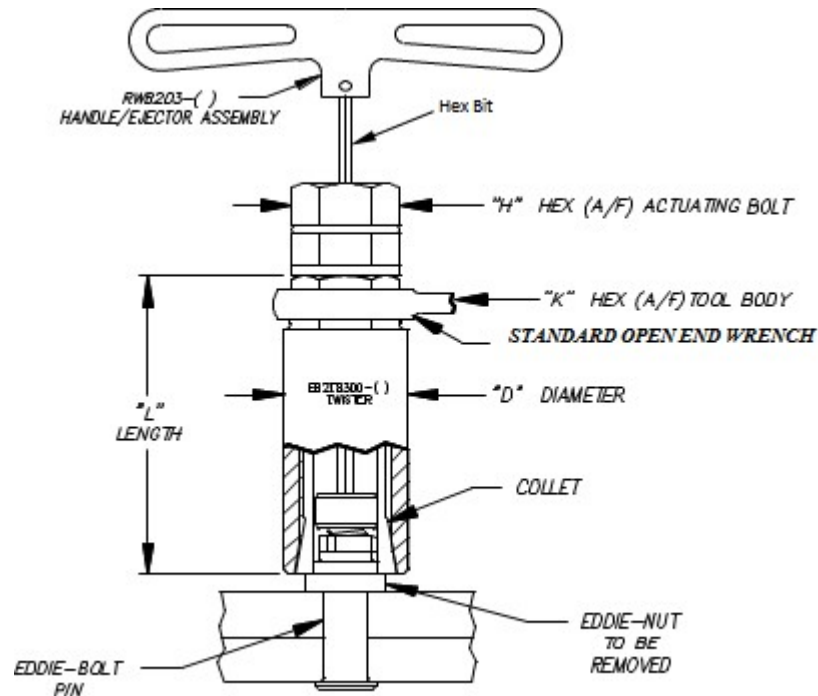
**NOTES:**

- The collet grips the lobed ends of the Eddie-Bolt® 2 fasteners to remove them from the Eddie-Bolt® 2 fastener pins.

Removal Tool Part Number	Tool Body			"H" Hex (A/F)	Handle / Ejector Assembly	Handle Only	Spline Bit Only	Collet (Order Number)
	"D" Dia.	"K" Hex (A/F)	"L" Length					
EB2T8300-05SPK	.56	7/16	1.17	7/16	RWB203-05SPK	098-9121	093-9207	100714-007
EB2T8300-06SPK	.56	7/16	1.17	7/16	RWB203-06SPK	098-9122	093-9208	100714-008
EB2T8300-08SPK	.75	9/16	1.58	1/2	RWB203-08SPK	098-9123	093-9209	100714-009
EB2T8300-10SPK	.95	11/16	2.00	9/16	RWB203-10SPK	098-9124	093-9210	100714-005E
EB2T8300-12SPK	1.17	13/16	2.47	3/4	RWB203-12SPK	098-9125	093-9211	100714-006E

Note: -12 Diameter is currently only available in a hex key configuration, see EB2T8300-12N

# Hand Removal Tool with Hex Keys



USE AN OPEN END WRENCH TO HOLD THE TOOL BODY, A COUNTER-CLOCKWISE ROTATION TIGHTENS THE GRIP OF THE COLLET ON THE NUT. CONTINUED ROTATION WILL UNTHREAD THE NUT.

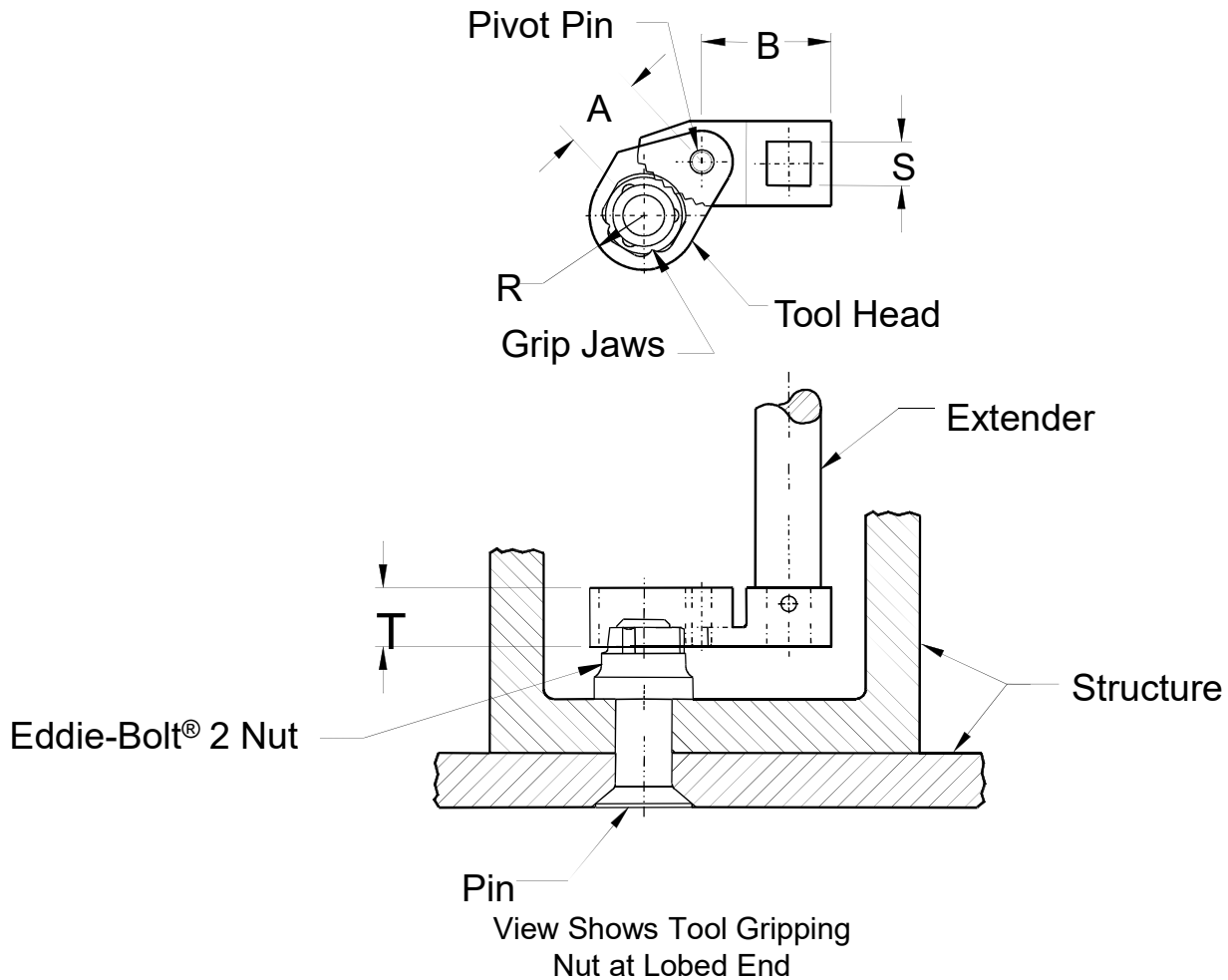
## NOTES:

- The collet grips the lobed ends of the Eddie-Bolt® 2 fasteners to remove them from the Eddie-Bolt® 2 fastener pins.

**Will not work with Spline-Lok® keys, hex keys only**

Nut Dia.	Removal Tool Part Number	Tool Body			"H" Hex (A/F)	Handle / Ejector Assembly	Handle Only	Hex Bit Only
		"D" Dia.	"K" Hex (A/F)	"L" Length				
-12	EB2T8300-12N	1.17	13/16	2.47	3/4	RWB203-15E	098-9132	093-9345
-14	EB2T8300-14N	TBD	TBD	TBD	TBD	RWB203-18E	098-9133	093-9346
-16	EB2T8300-16N	TBD	TBD	TBD	TBD	RWB203-21E	098-9134	093-9347

# Crowsfoot Removal Tool

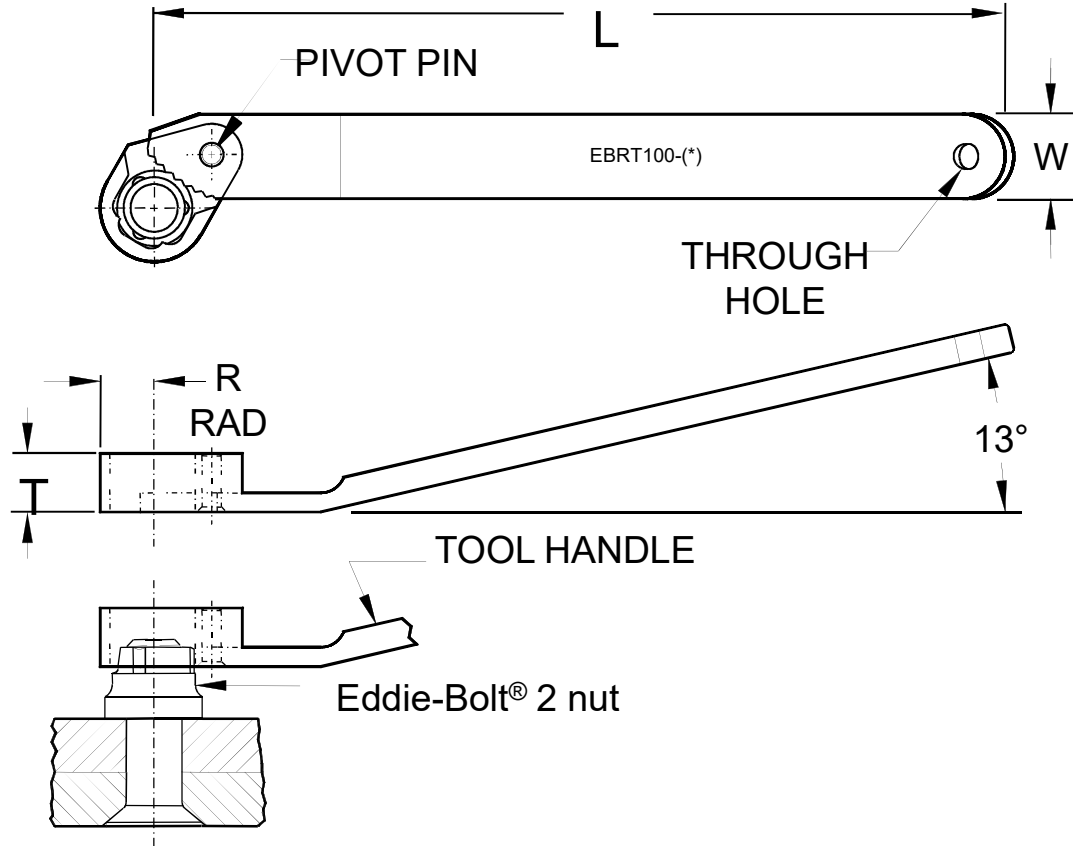


## NOTES:

- THIS CROW FOOT TYPE RATCHET REMOVAL TOOL IS USED WITH AN EXTENDER OF VARYING LENGTH (PROVIDED BY USER) ALLOWS REMOVAL OF NUTS LOCATED IN DEEP CHANNELS OR IN VERY RESTRICTED AREAS.
- THE TOOL GRIPS THE LOBED ENDS OF NUTS TO REMOVE THEM FROM PINS.

Fastener Diameter	Removal Tool Part Number	T	R	A	B	S
-5	EBRT100-5CF	.28	.28	.36	.66	.25
-6	EBRT100-6CF	.28	.28	.36	.66	.25
-8	EBRT100-8CF	.28	.28	.51	.76	.25
-10	EBRT100-10CF	.37	.35	.56	1.01	.37
-12	EBRT100-12CF	.47	.43	.81	1.16	.37

# Hand Removal Wrench



VIEW SHOWS TOOL GRIPPING NUT AT LOBED END

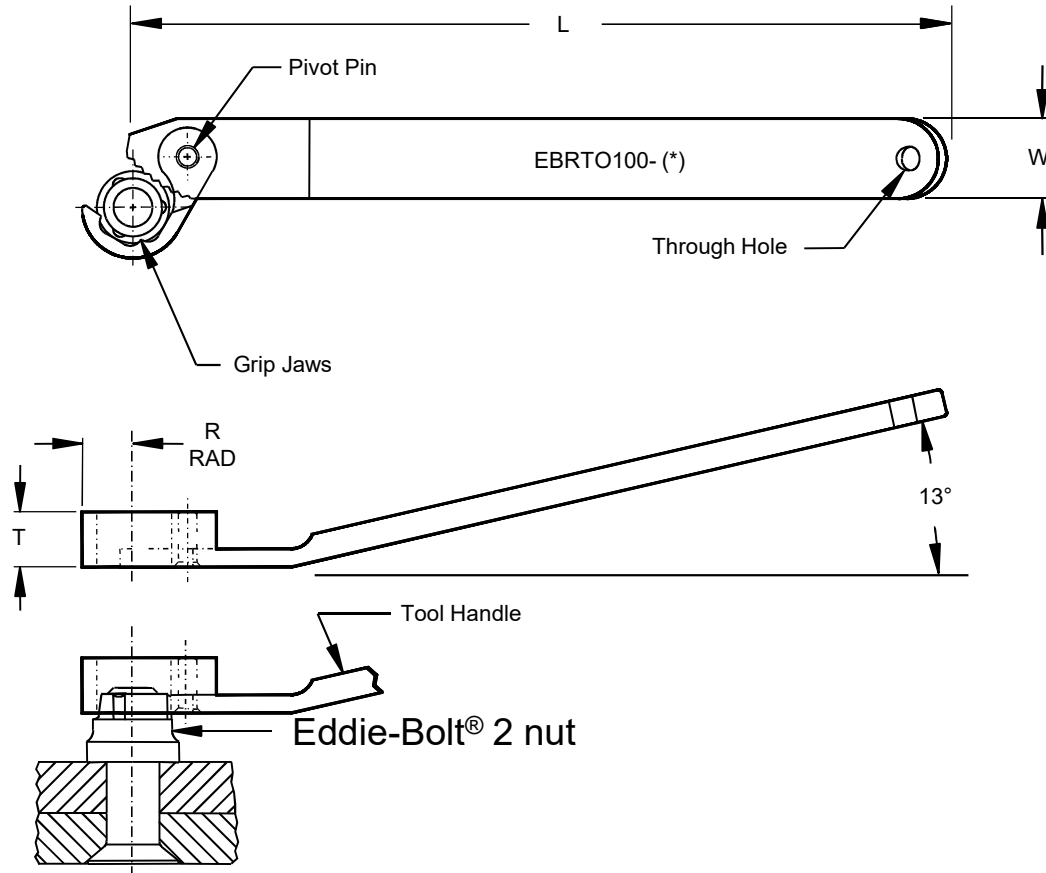
Note:

- Ratchet type removal tool securely grips Eddie-Bolt® 2 nuts at the lobed ends for their easy removal.
- EBRT100-(\* )S indicates a straight handle

Fastener Diameter	Tool Model Number	T	R	L	W
-5	EBRT100-5	.28	.28	5.60	.42
-6	EBRT100-6	.28	.28	5.60	.42
-8	EBRT100-8	.28	.28	5.60	.55
-10	EBRT100-10	.38	.35	5.80	.55
-12	EBRT100-12	.47	.43	6.90	.67

Dwg Rev: (-8 dia) "W" dimension changed from .42 to .55 on 4-22-10

# Hand Removal Wrenches



**Note:**

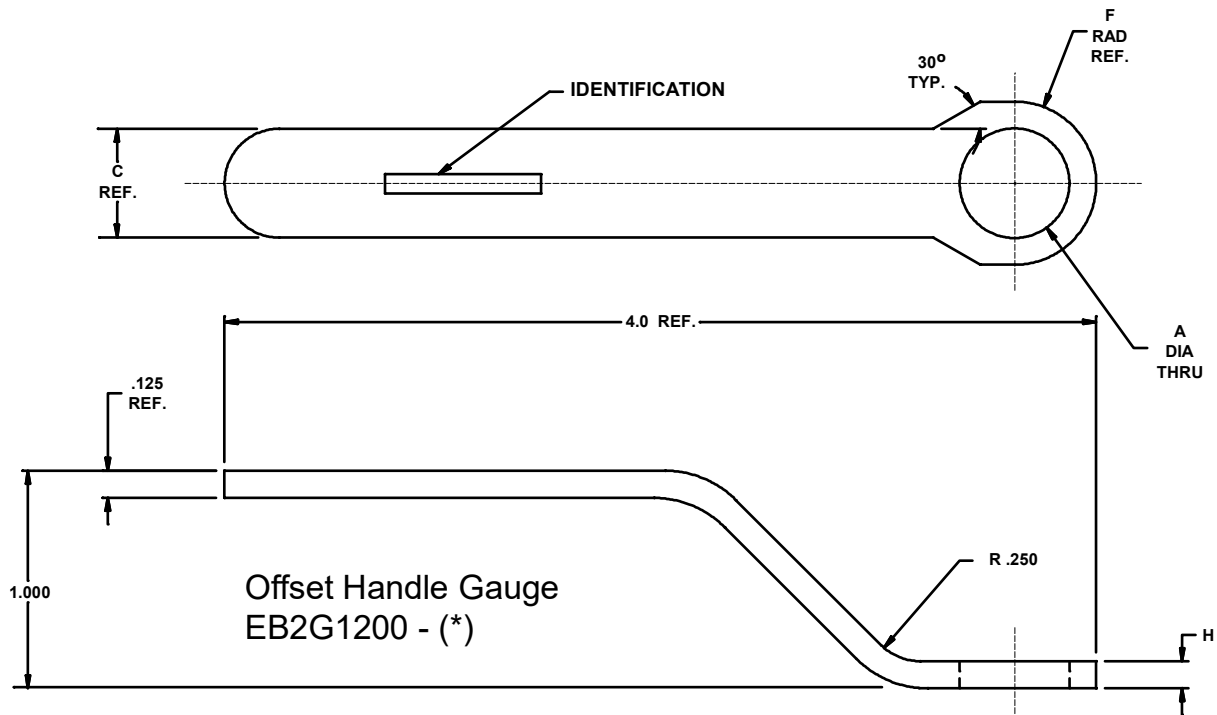
- Ratchet Type Removal Tool Securely Grips Eddie-Bolt® 2 Nuts at the lobed ends for their easy removal.

Fastener Diameter	Tool Model Number	T	R	L	W
-5	EBRTO100-5	.28	.28	5.60	.42
-6	EBRTO100-6	.28	.28	5.60	.42
-8	EBRTO100-8	.28	.28	5.60	.42
-10	EBRTO100-10	.38	.35	5.80	.55
-12	EBRTO100-12	.47	.43	6.90	.67

## **SECTION 5**

# Inspection Gauges

# Paddle Gauges for Inspection of Nut Swage

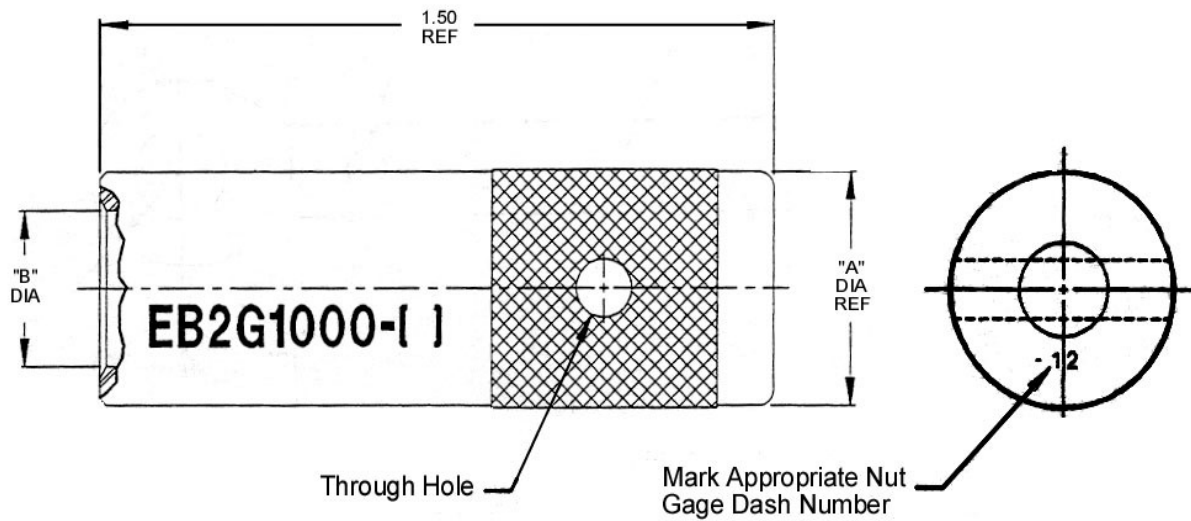


STRAIGHT HANDLE GAUGE	OFFSET HANDLE GAUGE	A DIA.	C REF	F RADIUS	H REF
EB2G1100-5	EB2G1200-5	.2295 .2280	.250	.250	.125
EB2G1100-6	EB2G1200-6	.2535 .2520	.250	.250	.125
EB2G1100-8	EB2G1200-8	.3400 .3385	.375	.312	.125
EB2G1100-10	EB2G1200-10	.4115 .4100	.375	.375	.125
EB2G1100-12	EB2G1200-12	.5075 .5060	.500	.375	.125

Note: This gauge is used to inspect an installed Eddie-Bolt® 2 nut to make certain it is fully swaged. It is to be used as a “Go / No Go” gauge. If the gauge fits over the installed fastener it is a “Go” and if the gauge does not fit over the fastener it is considered a “No Go”.



# Cylindrical Type, Nut Inspection Gauge



Nut Gauge Dash Number	Nut Gauge Part Number	"A" DIA REF	"B" DIA.	C DIM MIN	REV.
-5	EB2G1000-5	.375	.2295 .2280	.150	M
-6	EB2G1000-6	.375	.2535 .2520	.150	M
-8	EB2G1000-8	.500	.3400 .3385	.250	M
-10	EB2G1000-10	.625	.4115 .4100	.250	M
-12	EB2G1000-12	.750	.5075 .5060	.275	M

**Material:** Stainless Steel, Heat Treated

**Finish:** None

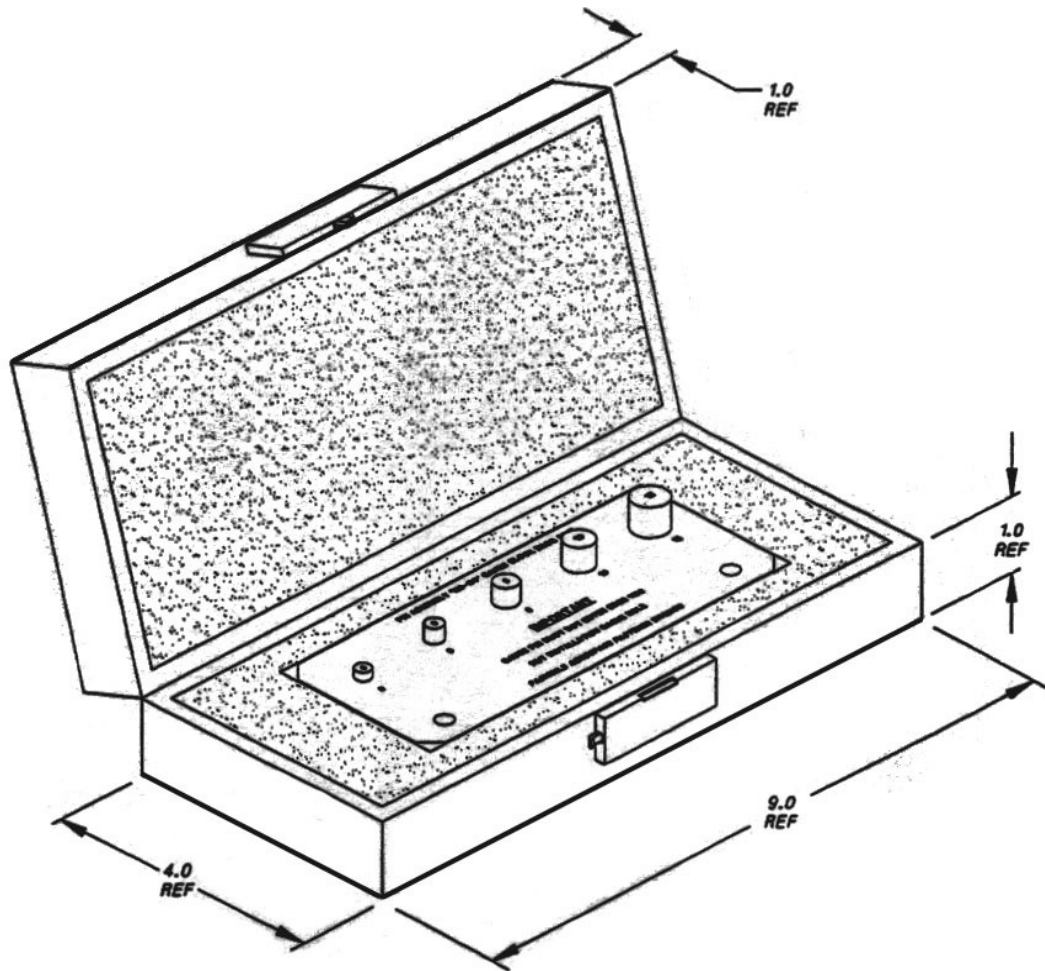
**Example of Part Number**

EB2G1000 - 5

Designates Gauge Dia. Size

Basic Part Number

# Master Pin Gauge

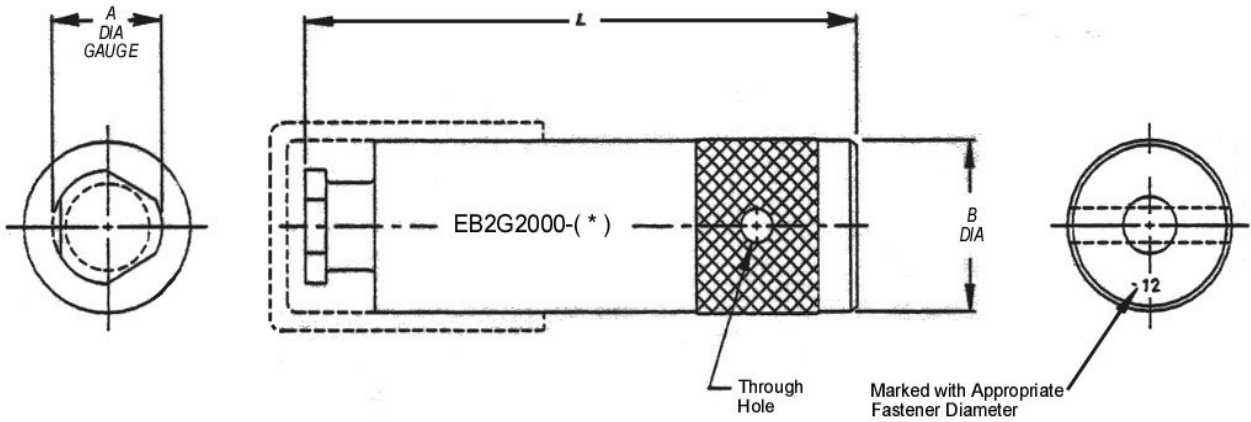


Note:

Part Number: EB2G2010

The Master Pin Gauge is for checking wear on the Paddle and Cylindrical Nut Inspection Gauges

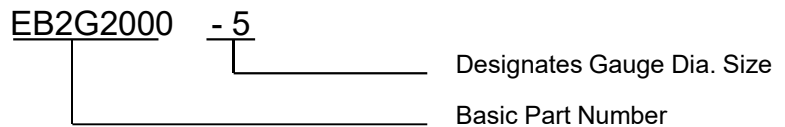
# Driver / Socket Inspection Gauge



Driver Inspection Diameter	Driver Inspection Part Number	"A" DIA Gauge +.0002 -.0002	"B" DIA REF	"L" REF
-5	EB2G2000-5	.2235	.375	1.250
-6	EB2G2000-6	.2475	.375	1.250
-8	EB2G2000-8	.3330	.500	1.375
-10	EB2G2000-10	.4035	.625	1.562
-12	EB2G2000-12	.4985	.750	1.625

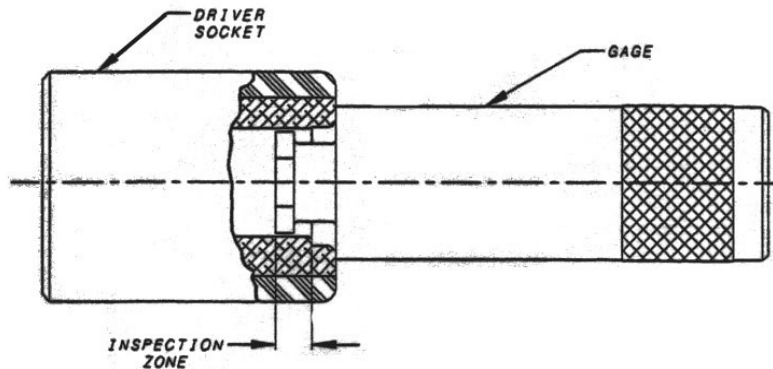
**Material:** Stainless Steel, Heat Treated  
**Finish:** None

Example of Part Number:

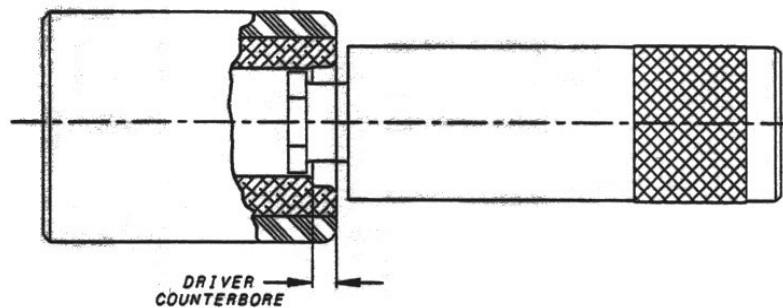


Refer to next page for Inspection Procedure

# Driver / Socket Inspection Gauge



**FIGURE 1**



**FIGURE 2**

Part Number: EB2G2000- ( \* )

## **INSPECTION PROCEDURE:**

1. INSERT GAUGE FULLY INTO DRIVER BETWEEN THE DRIVING RADII PER FIGURE 1, THEN ROTATE THE GAUGE.
2. WHILE CONTINUING TO ATTEMPT TO RATATE, MOVE THE GAUGE OUT TOWARD THE DRIVER COUNTERBORE PER FIGURE 2.

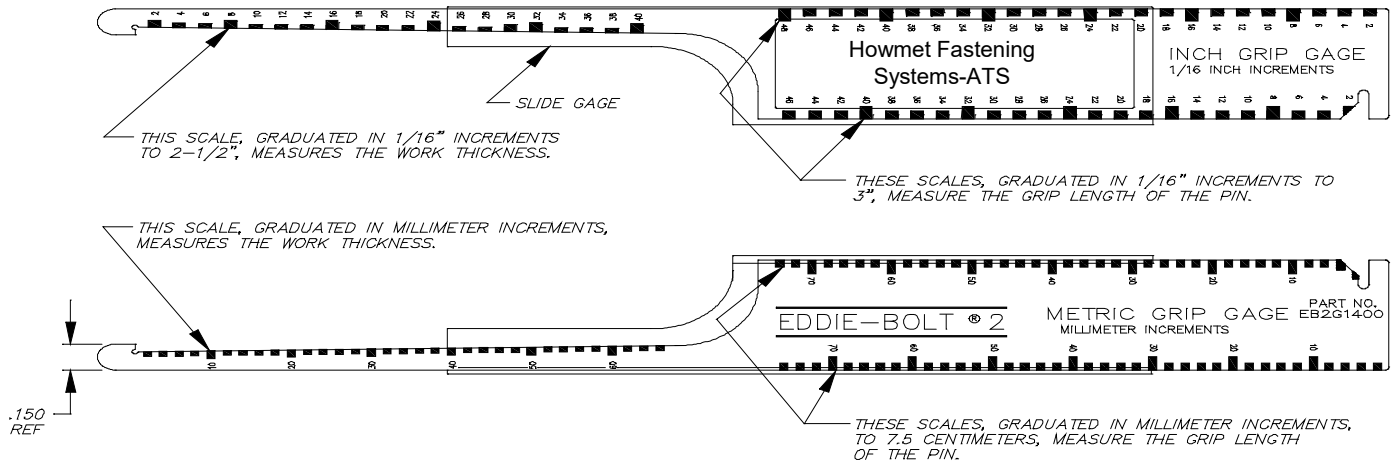
ACCEPT: GAUGE **DOES NOT** ROTATE OVER THE DRIVING RADII MORE THAN 90° IN ANY AREA OF INSPECTION ZONE.

REJECT: GAUGE **DOES** ROTATE OVER THE DRIVING RADII MORE THAN 90° IN ANY AREA OF INSPECTION ZONE.

# Grip Gauge for Selection of Proper Pin Grip Length - "EB2G1400"

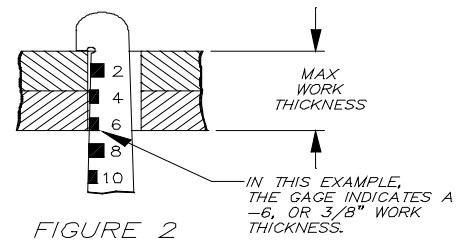
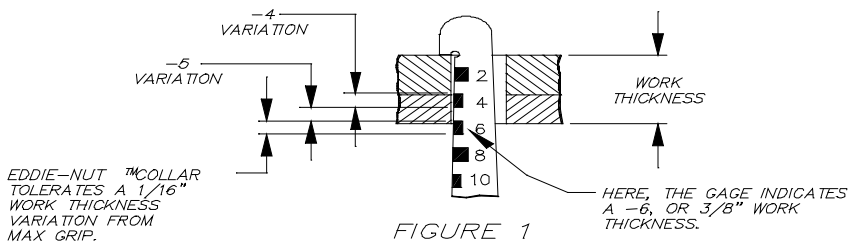
**NOTES:**

1. THIS GRIP GAGE IS USED WITH THE EDDIE-BOLT® 2 FASTENING SYSTEM.
2. THE GRIP GAGE SIMPLIFIES THE MEASURING OF THE WORK THICKNESS AND THE RELATED LENGTH IN INCH OR METRIC INCREMENTS OF BOTH FLUSH AND PROTRUDING HEAD PINS.
3. GRIP AND SLIDE GAGE MATERIAL: .020 THICK STAINLESS STEEL.
4. FINISH: SATIN FINISH, INCH MARKINGS IN BLACK AND METRIC MARKINGS ARE IN ORANGE.

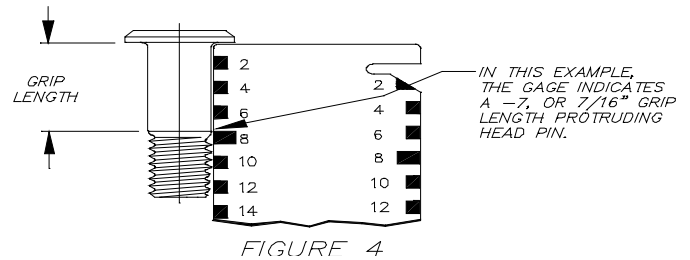
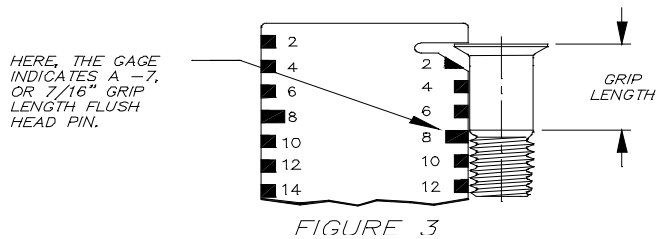


**HOW TO USE**

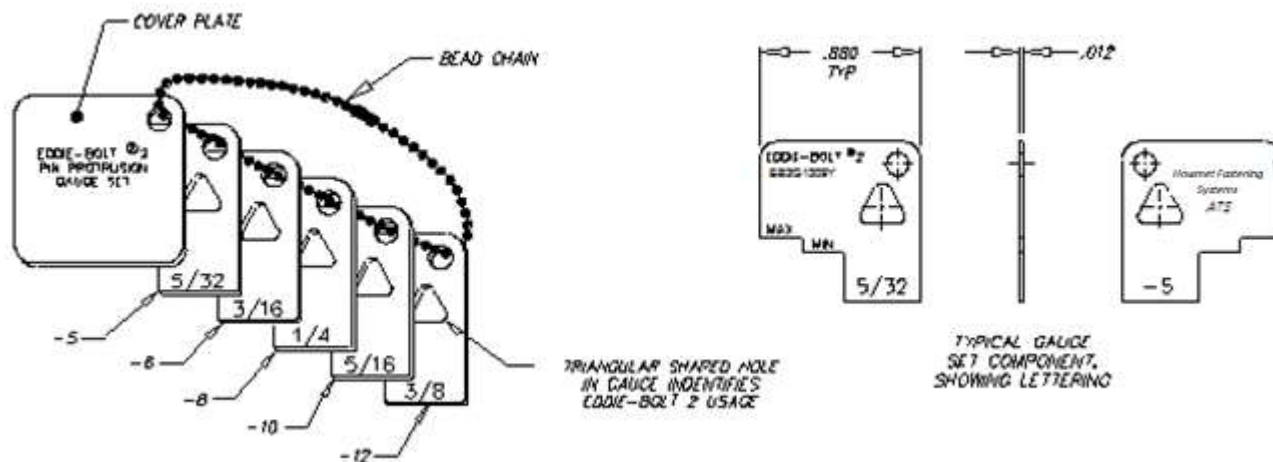
TO MEASURE THE WORK THICKNESS, HOOK THE GAGE ON TO THE BACKSIDE AS SHOWN IN FIGURE 1 AND 2 BELOW. READ THE SCALE NUMBER EVEN WITH THE WORK SURFACE.



TO MEASURE THE GRIP LENGTH OF THE PIN, PLACE THE PIN, DEPENDING ON THE HEAD TYPE, AGAINST THE GAGE AS SHOWN IN FIGURE 3 AND 4 BELOW. READ THE HIGHEST NUMBER OPPOSITE THE GRIP OF THE FULL SHANK DIAMETER.



# Pin Protrusion Gauge

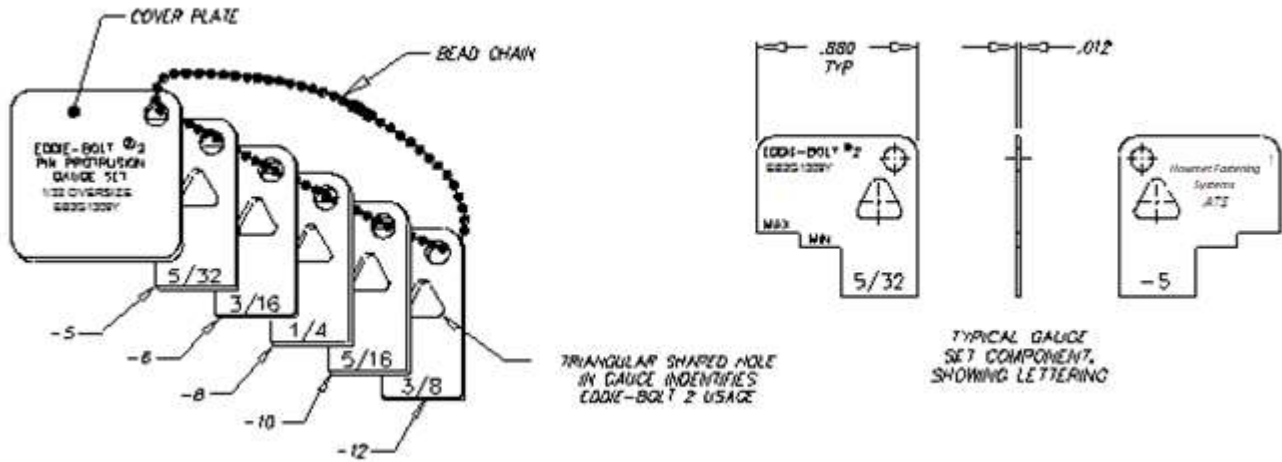


GAUGE SET PART NUMBER	GAUGE SIZE DASH NUMBER	PIN NOMINAL DIA.	MAX PROTRUSION	MIN PROTRUSION
EB2G1309	-5	5/32	.358	.275
	-6	3/16	.378	.295
	-8	1/4	.423	.340
	-10	5/16	.518	.435
	-12	3/8	.558	.475

This item is sold as a gauge set only. [EB2G1309](#)

1. Individual gages are assembled on a chain as shown.
2. This gauge is for standard and 1/64" oversize pin diameters

# Pin Protrusion Gauge



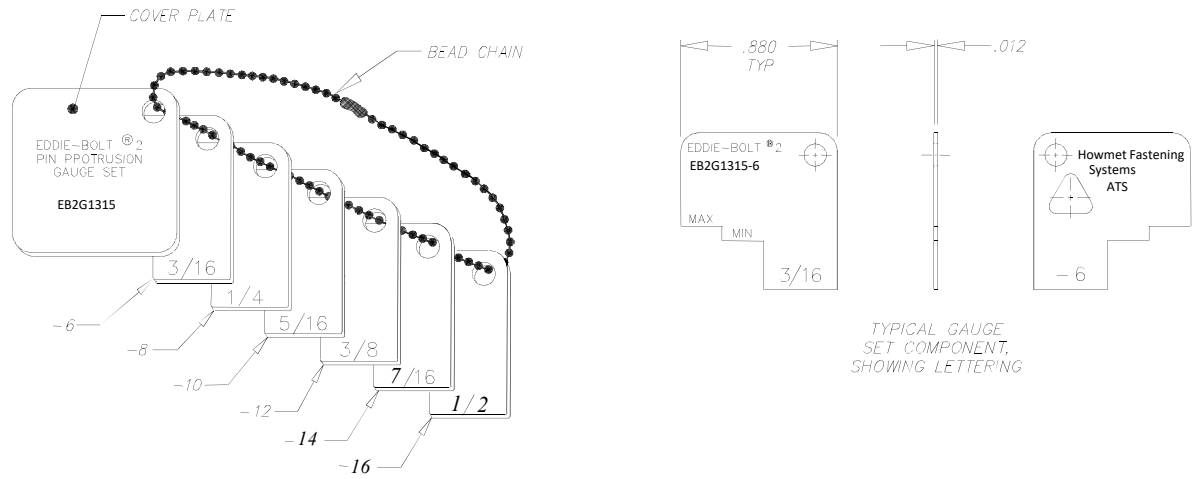
## OVERSIZE PROTRUSION GAUGE SET

GAUGE SET PART NUMBER	GAUGE SIZE DASH NUMBER	PIN NOMINAL DIA.	MAX PROTRUSION	MIN. PROTRUSION
EB2G1309Y	-6Y	3/16	.397	.315
	-8Y	1/4	.457	.375
	-10Y	5/16	.562	.480
	-12Y	3/8	.602	.520

This item is sold as a gauge set only. [EB2G1309Y](#)

1. Individual gages are assembled on a chain as shown.
2. This gauge is for standard and 1/64" oversize pin diameters

# Pin Protrusion Gauge



Use with Standard and 1/64" Oversize  
BACB31H & BACB31K Eddie-Bolt® 2 pins

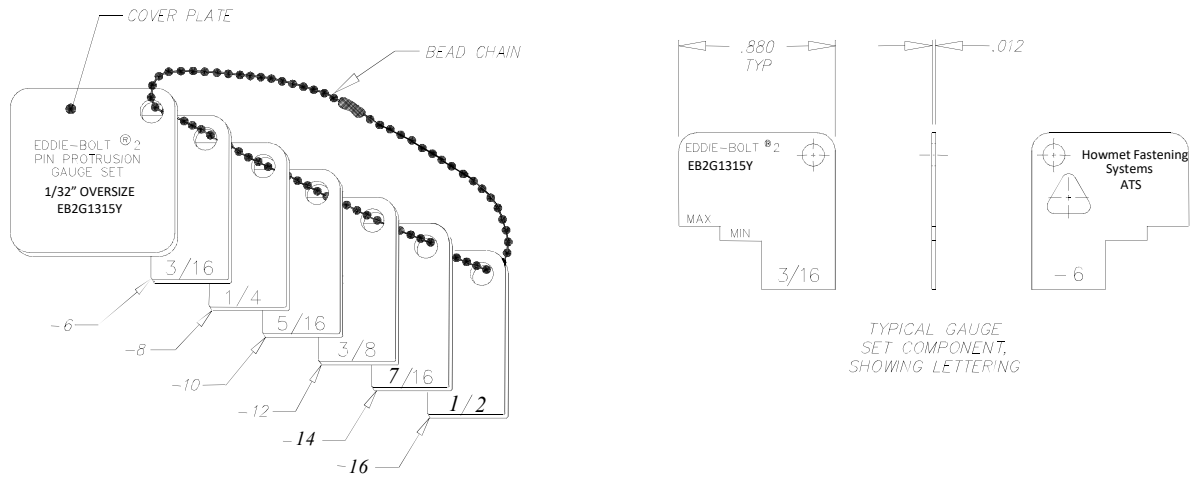
GAUGE SET PART NUMBER	GAUGE SIZE DASH NUMBER	PIN NOMINAL DIA.	MAX PROTRUSION	MIN PROTRUSION
EB2G1315	-6	3/16	.398	.315
	-8	1/4	.468	.385
	-10	5/16	.573	.490
	-12	3/8	.618	.535
	-14	7/16	.708	.625
	-16	1/2	.783	.700

This item is sold as a gauge set only. [EB2G1315](#)

1. Individual gages are assembled on a chain as shown.
2. This gage is for standard and 1/64" oversize pin diameters



# Pin Protrusion Gauge



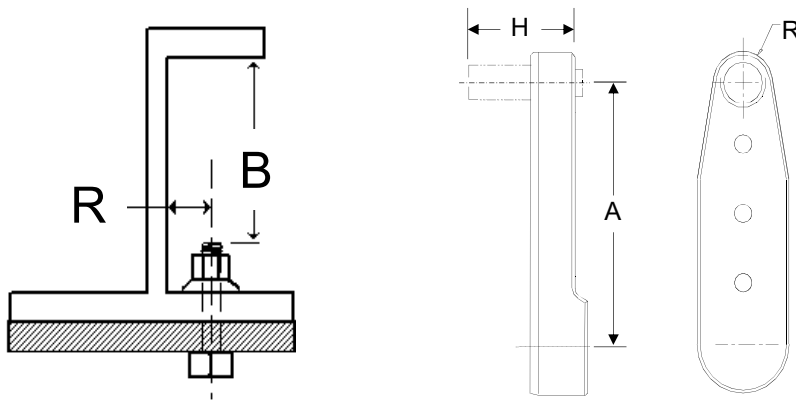
Use with BACB31H & BACB31K 1/32" Oversize Pin Diameter Bolts

GAUGE SET PART NUMBER	GAUGE SIZE DASH NUMBER	PIN NOMINAL DIA.	MAX PROTRUSION	MIN PROTRUSION
EB2G1315Y	-6Y	3/16	.418	.335
	-8Y	1/4	.503	.420
	-10Y	5/16	.618	.535
	-12Y	3/8	.663	.580
	-14Y	7/16	.734	.651
	-16Y	1/2	.833	.750

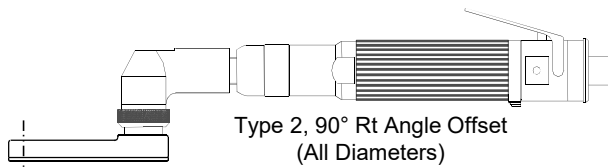
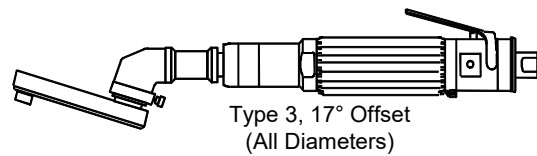
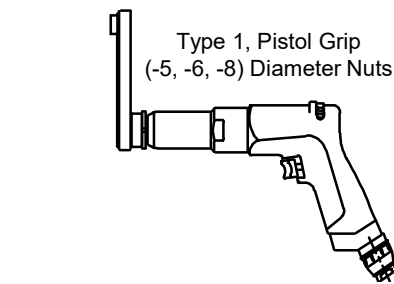
This item is sold as a gauge set only. EB2G1315Y

1. Individual gages are assembled on a chain as shown.
2. This gage is for standard and 1/64" oversize pin diameters

# New Tool Application Form



1. "R" Dimension Minimum \_\_\_\_\_ inches.
2. "B" Minimum Clearance over Pin \_\_\_\_\_ inches.
3. Diameter of the EN nut ( -5, -6, -8, -10, -12, -14 ) (circle one)
5. "A" Maximum and Minimum Offset Dimensions. Max \_\_\_\_\_ Min \_\_\_\_\_
6. "H" Maximum Height Dimension, Including Socket Max \_\_\_\_\_ inches.
7. Is an extended socket required? Yes \_\_\_\_\_, No \_\_\_\_\_, Length of socket \_\_\_\_\_



8. Determine type of tool: Type 1 \_\_\_\_\_, Type 2 \_\_\_\_\_, Type 3 \_\_\_\_\_, Type 4 \_\_\_\_\_
9. Tool model number preferred: \_\_\_\_\_ (See Eddie-Bolt® 2 tools catalog)

Company Name: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Phone: \_\_\_\_\_ FAX: \_\_\_\_\_

Return by E-Mail [glenn.anderson@Howmet.com](mailto:glenn.anderson@Howmet.com) or FAX: (714) 871-4821



## **Howmet Fastening Systems**

### **Assembly Tool Systems Division**

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