



ZEPHYR[®]
T O O L

LOK-FAST

AEROSPACE FASTENER TOOLS

TORQUE CONTROL TOOLS



Torque Control Tools

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*U.S. Patent Number 6,305,666
 QRS is a Registered Trademark of Lok-Fast, Inc*



Features of Lok-Fast Torque Control Tools

We pride ourselves at making the very best tools on the market. They are easy to use (QRS[®] Sockets) and versatile to meet all your installation and removal needs.

Tools Configurations:

The Lok-Fast Torque Control Tools come in several configurations allowing for the operator to choose the tool best designed for his needs.

Versatility:

All the heads are designed to be 360 degree indexable and give a constant torque at any angle.

Ease of Use:

The QRS[®] Sockets allow for the quick and easy installation and removal of the hex tip with out the need for any other tooling. This eliminates excess down time and keeps the tool on the job longer.

Indexing Feature:

The tools are fully indexable (360°). No extra tooling is required to utilize the indexing mechanism, allowing for quick adjustments and increased versatility.

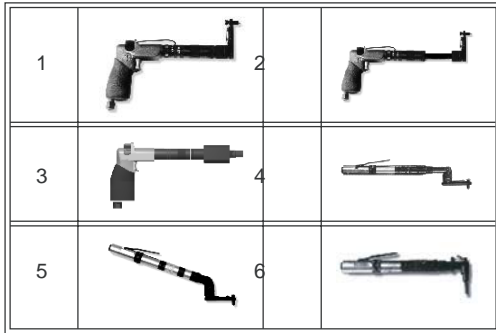




Torque Control Tool Part Number System

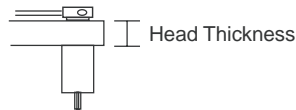
LTC -

STYLE _____



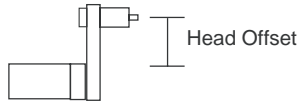
HEAD THICKNESS _____

2	=	0.25"
3	=	0.33"
4	=	0.46"



HEAD OFFSET _____

3	=	0.95"
5	=	2.10"
7	=	3.44"



TORQUE RATING* _____

T2	=	15 to 25 in-lbs
T3	=	26 to 55 in-lbs
T4	=	40 to 80 in-lbs
T5	=	80 to 120 in-lbs

Important to note not all torque ratings are available for all head thicknesses and offsets. Refer to specific tool pages for details.

SOCKET HEX SIZE _____

7/32	=	21
1/4	=	25
9/32	=	28
5/16	=	31
11/32	=	34



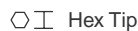
SOCKET LENGTH _____

-	=	flush
B	=	0.5"
D	=	1.0"
F	=	1.5"
H	=	2.0"
L	=	3.0"
P	=	4.0"



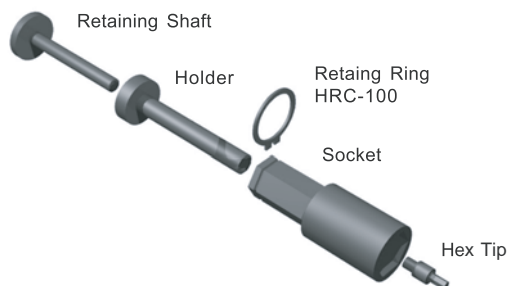
HEX TIP _____

5	=	1/16
6	=	5/64
8	=	3/32





Torque Control Tooling Quick Release System[®]



Ordering Information:

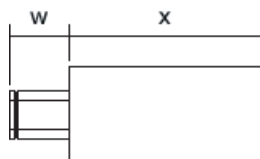
1. Select the required *Hex Tip Size*
2. Select the *Socket Hex Size*
3. Select the *Drive Hex Length (w)*
4. Select the *Socket Extension (x)*
5. Combine as shown below

Example: **LTSA25 - 25B5**

LTSA25 ----- 0.25" Long Socket Drive Hex
25 ----- 1/4" Socket Hex
B --- 1/2" Long Extended Socket
5 - 1/16" Hex Key

Hex Tip	Socket Hex	Complete Part #	Socket	Holder	Retaining Shaft
1/16 QRK - 5	7/32	LTSA(w) - 21(x)5	LTS(w) - 21(x)	LTH(w)(x)	LTRS(w)(x)
	1/4	LTSA(w) - 25(x)5	LTS(w) - 25(x)		
	9/32	LTSA(w) - 28(x)5	LTS(w) - 28(x)		
	5/16	LTSA(w) - 31(x)5	LTS(w) - 31(x)		
	11/32	LTSA(w) - 34(x)5	LTS(w) - 34(x)		
5/64 QRK - 6	7/32	LTSA(w) - 21(x)6	LTS(w) - 21(x)	LTH(w)(x)	LTRS(w)(x)
	1/4	LTSA(w) - 25(x)6	LTS(w) - 25(x)		
	9/32	LTSA(w) - 28(x)6	LTS(w) - 28(x)		
	5/16	LTSA(w) - 31(x)6	LTS(w) - 31(x)		
	11/32	LTSA(w) - 34(x)6	LTS(w) - 34(x)		
3/32 QRK - 8TC	3/8	LTSA(w) - 37(x)6	LTS(w) - 37(x)	LTH(w)(x)	LTRS(w)(x)
	5/16	LTSA(w) - 31(x)8	LTS(w) - 31(x)		
	11/32	LTSA(w) - 34(x)8	LTS(w) - 34(x)		
	7/16	LTSA(w) - 43(x)8	LTS(w) - 43(x)		

W	Head Thickness
25	0.25"
33	0.33"
47	0.47"



X	Socket Length
B	0.5"
D	1.0"
F	1.5"
H	2.0"
L	3.0"
P	4.0"

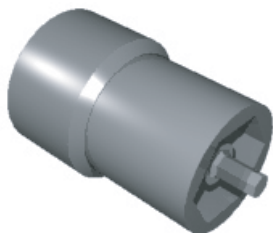


Torque Control Tooling

Quick Release System

For use with LTC300 Series

(Inline Pistol Grip)



Ordering Information:

1. Select the required *Hex Tip Size*
2. Select the *Socket Hex Size*
3. Select the *Socket Length (x)*
4. Combine as shown below

Example: **LTSDSA21H5**

LTSDSA ----- Basic Socket Assy
21 ----- 7/32" Socket Hex
H --- 2" Long Extended Socket
5 - 1/16" Hex Key

Hex Tip	Socket Hex	Complete Part #	Socket	Holder	Retaining Shaft
1/16 QRK - 5	7/32	LTSDSA21(x)5	LTSDS21(x)	LTSDH(x)	LTSDRS(x)
	1/4	LTSDSA25(x)5	LTSDS25(x)		
	9/32	LTSDSA28(x)5	LTSDS28(x)		
	5/16	LTSDSA31(x)5	LTSDS31(x)		
	11/32	LTSDSA34(x)5	LTSDS34(x)		
5/64 QRK - 6	7/32	LTSDSA21(x)6	LTSDS21(x)	LTSDH(x)	LTSDRS(x)
	1/4	LTSDSA25(x)6	LTSDS25(x)		
	9/32	LTSDSA28(x)6	LTSDS28(x)		
	5/16	LTSDSA31(x)6	LTSDS31(x)		
	11/32	LTSDSA34(x)6	LTSDS34(x)		
	3/8	LTSDSA37(x)6	LTSDS37(x)		
3/32 QRK - 8TC	5/16	LTSDSA31(x)8	LTSDS31(x)	LTSDH(x)	LTSDRS(x)
	11/32	LTSDSA34(x)8	LTSDS34(x)		
	3/8	LTSDSA37(x)8	LTSDS37(x)		
	7/16	LTSDSA43(x)8	LTSDS43(x)		



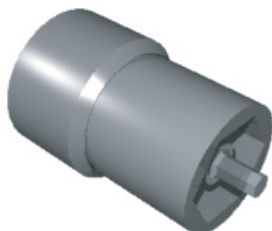
X	Socket Length
H	2.0"
P	4.0"



Torque Control Tooling

Quick Release System[®]

For use with LTC600 Series
(Right Angle)



Ordering Information:

1. Select the required *Hex Tip Size*
2. Select the *Socket Hex Size*
3. Select the *Socket Length (x)*
4. Combine as shown below

Example: **LTRASA21H5**

LTRASA ----- Basic Tool
21 ----- 7/32" Socket Hex
H --- 2" Long Extended Socket
5 - 1/16" Hex Key

Hex Tip	Socket Hex	Complete Part #	Socket	Holder	Retaining Shaft
1/16 QRK - 5	7/32	LTRASA21(x)5	LTRAS21(x)	LTRAH(x)	LTRARS(x)
	1/4	LTRASA25(x)5	LTRAS25(x)		
	9/32	LTRASA28(x)5	LTRAS28(x)		
	5/16	LTRASA31(x)5	LTRAS31(x)		
	11/32	LTRASA34(x)5	LTRAS34(x)		
5/64 QRK - 6	7/32	LTRASA21(x)6	LTRAS21(x)	LTRAH(x)	LTRARS(x)
	1/4	LTRASA25(x)6	LTRAS25(x)		
	9/32	LTRASA28(x)6	LTRAS28(x)		
	5/16	LTRASA31(x)6	LTRAS31(x)		
	11/32	LTRASA34(x)6	LTRAS34(x)		
	3/8	LTRASA37(x)6	LTRAS37(x)		
3/32 QRK - 8TC	5/16	LTRASA31(x)8	LTRAS31(x)	LTRAH(x)	LTRARS(x)
	11/32	LTRASA34(x)8	LTRAS34(x)		
	3/8	LTRASA37(x)8	LTRAS37(x)		
	7/16	LTRASA43(x)8	LTRAS43(x)		



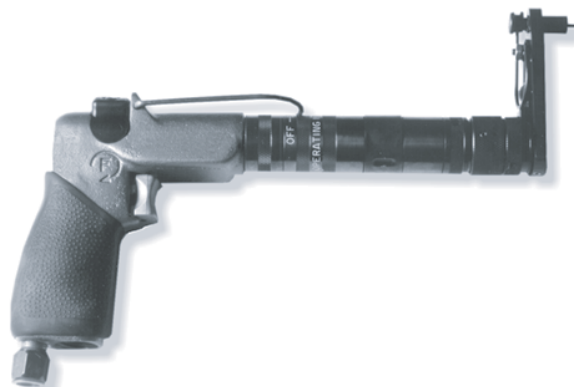
X	Socket Length
D	1.0"
F	1.5"
H	2.0"
L	3.0"
P	4.0"



Torque Control Tooling

LTC12 Series

0.25" Thick Head - (T2 - T3)



Ordering Information:

1. Select the *Head Offset* required (H)
2. Select *Nut Setting Torque* (T)
3. Select the *Socket Hex Size* needed
4. Select the *Socket Length* required (x)
4. Select the *Hex Tip* required
5. Combine Part Numbers as Shown Below

Example Extended Socket

LTC123T2 - 25B5

LTC12 ----- Basic Tool

3 ----- 0.95" Offset

T2 ----- 15 to 25 in-lbs. Torque Range

25 ----- 1/4" Socket Hex

B --- 1/2" Long Extended Socket

5 - 1/16" Hex Tip

(H)	Head Offset
3	0.95"
5	2.10"

(T)	Torque Range
T2	15 to 25 in - lbs
T3	26 to 55 in - lbs

(X)	Socket Length
B	0.5"
D	1.0"
F	1.5"
H	2.0"
L	3.0"
P	4.0"

Tool Data	
Performance Rated @	90 PSI
Air Inlet	1/4 N.P.T.
RPM (free speed)	T2-T3 = 600

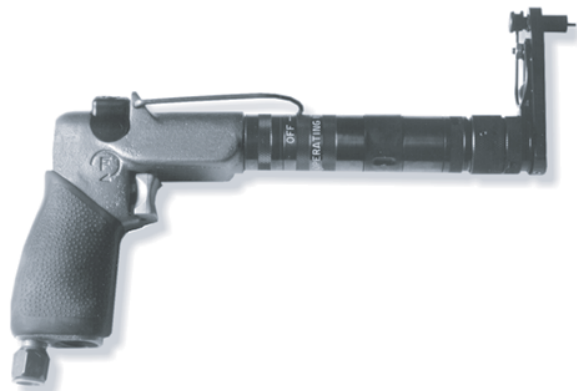
Hex Tip	Socket Hex	Complete Part #
1/16	7/32	LTC12(H)(T) - 21(x)5
	1/4	LTC12(H)(T) - 25(x)5
	9/32	LTC12(H)(T) - 28(x)5
	5/16	LTC12(H)(T) - 31(x)5
5/64	11/32	LTC12(H)(T) - 34(x)5
	7/32	LTC12(H)(T) - 21(x)6
	1/4	LTC12(H)(T) - 25(x)6
	9/32	LTC12(H)(T) - 28(x)6
3/32	5/16	LTC12(H)(T) - 31(x)6
	11/32	LTC12(H)(T) - 34(x)6
	3/8	LTC12(H)(T) - 37(x)6
	5/16	LTC12(H)(T) - 31(x)8
3/32	11/32	LTC12(H)(T) - 34(x)8
	3/8	LTC12(H)(T) - 37(x)8
	7/16	LTC12(H)(T) - 43(x)8



Torque Control Tooling

LTC13 Series

0.33" Thick Head - (T2 - T4)



H	Head Offset
3	0.95"
5	2.10"
7*	3.44"

* Not available above T3

T	Torque Range
T2	15 to 25 in - lbs
T3	26 to 55 in - lbs
T4	40 to 80 in - lbs

X	Socket Length
-	flush
B	0.5"
D	1.0"
F	1.5"
H	2.0"
L	3.0"
P	4.0"

Tool Data	
Performance Rated @	90 PSI
Air Inlet	1/4 N.P.T.
RPM	T2 - T3 = 600 T4 = 400

Ordering Information:

1. Select the *Head Offset* required (H)
2. Select *Nut Setting Torque* (T)
3. Select the *Socket Hex Size*
4. Select the *Socket Length* required (x)
4. Select the *Hex Tip* required
5. Combine Part Numbers as Shown Below

Example Extended Socket

LTC133T2 - 25B5

LTC13 ----- Basic Tool
3 ----- 0.95" Offset
T2 ----- 15 to 25 in-lbs. Torque Range
25 ----- 1/4" Socket Hex
B --- 1/2" Long Extended Socket
5 - 1/16" Hex Tip

Example Flush

LTC133T2 - 25 - 5

LTC13 ----- Basic Tool.
3 ----- 0.95" Offset
T2 ----- 15 to 25 in-lbs. Torque Range
25 ----- 1/4" Flush Socket Hex
5 - 1/16 Hex Tip

Hex Tip	Socket Hex	Complete Part #
1/16	7/32	LTC13(H)(T) - 21(x)5
	1/4	LTC13(H)(T) - 25(x)5
	9/32	LTC13(H)(T) - 28(x)5
	5/16	LTC13(H)(T) - 31(x)5
	11/32	LTC13(H)(T) - 34(x)5
5/64	7/32	LTC13(H)(T) - 21(x)6
	1/4	LTC13(H)(T) - 25(x)6
	9/32	LTC13(H)(T) - 28(x)6
	5/16	LTC13(H)(T) - 31(x)6
	11/32	LTC13(H)(T) - 34(x)6
3/32	3/8	LTC13(H)(T) - 37(x)6
	5/16	LTC13(H)(T) - 31(x)8
	11/32	LTC13(H)(T) - 34(x)8
	3/8	LTC13(H)(T) - 37(x)8
	7/16	LTC13(H)(T) - 43(x)8



Torque Control Tooling

LTC14 Series

0.46" Thick Head - (T2 - T5)



H	Head Offset
3	0.95"
5	2.10"
7	3.44"

T	Torque Range
T2	15 to 25 in - lbs
T3	26 to 55 in - lbs
T4	40 to 80 in - lbs
T5	80 to 120 in - lbs

X	Socket Length
-	flush
B	0.5"
D	1.0"
F	1.5"
H	2.0"
L	3.0"
P	4.0"

Tool Data	
Performance Rated @	90 PSI
Air Inlet	1/4 N.P.T.
RPM (free speed)	T2 - T3 = 600 T4 - T5 = 400

Ordering Information:

1. Select the *Head Offset* required (H)
2. Select *Nut Setting Torque* (T)
3. Select the *Socket Hex Size*
4. Select the *Socket Length* required (x)
4. Select the *Hex Tip* required
5. Combine Part Numbers as Shown Below

Example Extended Socket

LTC143T2 - 25B5

LTC14 ----- Basic Tool
3 ----- 0.95" Offset
T2 ----- 15 to 25 in-lbs. Torque Range
25 ----- 1/4" Socket Hex
B --- 1/2" Long Extended Socket
5 - 1/16" Hex Tip

Example Flush

LTC143T2 - 25 - 5

LTC14 ----- Basic Tool
3 ----- 0.95" Offset
T2 ----- 15 to 25 in-lbs. Torque Range
25 ----- 1/4" Flush Socket Hex
5 - 1/16 Hex Tip

Hex Tip	Socket Hex	Complete Part #
1/16	7/32	LTC14(H)(T) - 21(x)5
	1/4	LTC14(H)(T) - 25(x)5
	9/32	LTC14(H)(T) - 28(x)5
	5/16	LTC14(H)(T) - 31(x)5
	11/32	LTC14(H)(T) - 34(x)5
5/64	7/32	LTC14(H)(T) - 21(x)6
	1/4	LTC14(H)(T) - 25(x)6
	9/32	LTC14(H)(T) - 28(x)6
	5/16	LTC14(H)(T) - 31(x)6
	11/32	LTC14(H)(T) - 34(x)6
3/32	3/8	LTC14(H)(T) - 37(x)6
	5/16	LTC14(H)(T) - 31(x)8
	11/32	LTC14(H)(T) - 34(x)8
	3/8	LTC14(H)(T) - 37(x)8
	7/16	LTC14(H)(T) - 43(x)8



Torque Control Tooling

LTC22 Series

0.25" Thick Head - (T2 - T3)



Ordering Information:

1. Select the *Head Offset* required (H)
2. Select *Nut Setting Torque* (T)
3. Select the *Socket Hex Size* needed
4. Select the *Socket Length* required (x)
4. Select the *Hex Tip* required
5. Combine Part Numbers as Shown Below

Example Extended Socket

LTC223T2 - 25B5

LTC22 ----- Basic Tool
3 ----- 0.95" Offset
T2 ----- 15 to 25 in-lbs. Torque Range
25 ----- 1/4" Socket Hex
B --- 1/2" Long Extended Socket
5 - 1/16" Hex Tip

H	Head Offset
3	0.95"
5	2.10"

T	Torque Range
T2	15 to 25 in - lbs
T3	26 to 55 in - lbs

X	Socket Length
B	0.5"
D	1.0"
F	1.5"
H	2.0"
L	3.0"
P	4.0"

Tool Data	
Performance Rated @	90 PSI
Air Inlet	1/4 N.P.T.
RPM	T2 - T3 = 600

Hex Tip	Socket Hex	Complete Part #
1/16	7/32	LTC22(H)(T) - 21(x)5
	1/4	LTC22(H)(T) - 25(x)5
	9/32	LTC22(H)(T) - 28(x)5
	5/16	LTC22(H)(T) - 31(x)5
5/64	11/32	LTC22(H)(T) - 34(x)5
	7/32	LTC22(H)(T) - 21(x)6
	1/4	LTC22(H)(T) - 25(x)6
	9/32	LTC22(H)(T) - 28(x)6
	5/16	LTC22(H)(T) - 31(x)6
3/32	11/32	LTC22(H)(T) - 34(x)6
	3/8	LTC22(H)(T) - 37(x)6
	5/16	LTC22(H)(T) - 31(x)8
	11/32	LTC22(H)(T) - 34(x)8
	3/8	LTC22(H)(T) - 37(x)8
	7/16	LTC22(H)(T) - 43(x)8



Torque Control Tooling

LTC23 Series

0.33" Thick Head - (T2 - T4)



Ordering Information:

1. Select the *Head Offset* required (H)
2. Select *Nut Setting Torque* (T)
3. Select the *Socket Hex Size* needed
4. Select the *Socket Length* required (x)
4. Select the *Hex Tip* required
5. Combine Part Numbers as Shown Below

Example Extended Socket

LTC233T2 - 25B5

LTC23 ----- Basic Tool
3 ----- 0.95" Offset
T2 ----- 15 to 25 in-lbs. Torque Range
25 ----- 1/4" Socket Hex
B --- 1/2" Long Extended Socket
5 - 1/16" Hex Tip

Example Flush:

LTC233T2 - 25 - 5

LTC23 ----- Basic Tool
3 ----- 0.95" Offset
T2 ----- 15 to 25 in-lbs. Torque Range
25 ----- 1/4" Flush Socket Hex
5 - 1/16 Hex Tip

H	Head Offset
3	0.95"
5	2.10"
7*	3.44"

* Not available above T3

T	Torque Range
T2	15 to 25 in - lbs
T3	26 to 55 in - lbs
T4	40 to 80 in - lbs

X	Socket Length
-	flush
B	0.5"
D	1.0"
F	1.5"
H	2.0"
L	3.0"
P	4.0"

Tool Data	
Performance Rated @	90 PSI
Air Inlet	1/4 N.P.T.
RPM	T2 - T3 = 600 T4 = 400

Hex Tip	Socket Hex	Complete Part #
1/16	7/32	LTC23(H)(T) - 21(x)5
	1/4	LTC23(H)(T) - 25(x)5
	9/32	LTC23(H)(T) - 28(x)5
	5/16	LTC23(H)(T) - 31(x)5
5/64	11/32	LTC23(H)(T) - 34(x)5
	7/32	LTC23(H)(T) - 21(x)6
	1/4	LTC23(H)(T) - 25(x)6
	9/32	LTC23(H)(T) - 28(x)6
	5/16	LTC23(H)(T) - 31(x)6
3/32	11/32	LTC23(H)(T) - 34(x)6
	3/8	LTC23(H)(T) - 37(x)6
	5/16	LTC23(H)(T) - 31(x)8
	11/32	LTC23(H)(T) - 34(x)8
	3/8	LTC23(H)(T) - 37(x)8
	7/16	LTC23(H)(T) - 43(x)8



Torque Control Tooling

LTC24 Series

0.46" Thick Head - (T2 - T5)



Ordering Information:

1. Select the *Head Offset* required (H)
2. Select *Nut Setting Torque* (T)
3. Select the *Socket Hex Size*
4. Select the *Socket Length* required (x)
4. Select the *Hex Tip* required
5. Combine Part Numbers as Shown Below

Example Extended Socket

LTC243T2 - 25B5

LTC24 ----- Basic Tool
3 ----- 0.95" Offset
T2 ----- 15 to 25 in-lbs. Torque Range
25 ----- 1/4" Socket Hex
B --- 1/2" Long Extended Socket
5 - 1/16" Hex Tip

Example Flush

LTC243T2 - 25 - 5

LTC24 ----- Basic Tool
3 ----- 0.95" Offset
T2 ----- 15 to 25 in-lbs. Torque Range
25 ----- 1/4" Flush Socket Hex
5 - 1/16 Hex Tip

H	Head Offset
3	0.95"
5	2.10"
7	3.44"

T	Torque Range
T2	15 to 25 in - lbs
T3	26 to 55 in - lbs
T4	40 to 80 in - lbs
T5	80 to 120 in - lbs

X	Socket Length
-	flush
B	0.5"
D	1.0"
F	1.5"
H	2.0"
L	3.0"
P	4.0"

Tool Data

Performance Rated @	90 PSI
Air Inlet	1/4 N.P.T.
RPM	T2 - T3 = 600 T4 - T5 = 400

Hex Tip	Socket Hex	Complete Part #
1/16	7/32	LTC24(H)(T) - 21(x)5
	1/4	LTC24(H)(T) - 25(x)5
	9/32	LTC24(H)(T) - 28(x)5
	5/16	LTC24(H)(T) - 31(x)5
	11/32	LTC24(H)(T) - 34(x)5
5/64	7/32	LTC24(H)(T) - 21(x)6
	1/4	LTC24(H)(T) - 25(x)6
	9/32	LTC24(H)(T) - 28(x)6
	5/16	LTC24(H)(T) - 31(x)6
	11/32	LTC24(H)(T) - 34(x)6
3/32	3/8	LTC24(H)(T) - 37(x)6
	5/16	LTC24(H)(T) - 31(x)8
	11/32	LTC24(H)(T) - 34(x)8
	3/8	LTC24(H)(T) - 37(x)8
	7/16	LTC24(H)(T) - 43(x)8



Torque Control Tooling

LTC300 Series

(T2 - T5)



Ordering Information:

1. Select the *Nut Setting Torque* (T)
2. Select the *Socket Hex Size*
3. Select the *Socket Length* required (x)
4. Select the *Hex Tip*
5. Combine Part Numbers as Shown Below

Example: **LTC300T2 - 25H5**

LTC300 ----- Basic Tool
T2 ----- 15 to 25 in-lbs. Torque Range
25 ----- 1/4" Socket Hex
H --- 2" Long Extended Socket
5 - 1/16" Hex Tip

T	Torque Range
T2	15 to 25 in - lbs
T3	26 to 55 in - lbs
T4	40 to 80 in - lbs
T5	80 to 120 in - lbs

X	Socket Length
H	2.0"
P	4.0"

Tool Data	
Performance Rated @	90 PSI
Air Inlet	1/4 N.P.T.
RPM	T2 - T3 = 600 T4 - T5 = 400

Hex Tip	Socket Hex	Complete Part #
1/16	7/32	LTC300(T) - 21(x)5
	1/4	LTC300(T) - 25(x)5
	9/32	LTC300(T) - 28(x)5
	5/16	LTC300(T) - 31(x)5
	11/32	LTC300(T) - 34(x)5
5/64	7/32	LTC300(T) - 21(x)6
	1/4	LTC300(T) - 25(x)6
	9/32	LTC300(T) - 28(x)6
	5/16	LTC300(T) - 31(x)6
	11/32	LTC300(T) - 34(x)6
3/8	3/8	LTC300(T) - 37(x)6
	5/16	LTC300(T) - 31(x)8
	11/32	LTC300(T) - 34(x)8
	3/8	LTC300(T) - 37(x)8
3/32	7/16	LTC300(T) - 43(x)8



Torque Control Tooling

LTC42 Series

0.25" Thick Head - (T2 - T3)



Ordering Information:

1. Select the *Head Offset* required (H)
2. Select *Nut Setting Torque* (T)
3. Select the *Socket Hex Size*
4. Select the *Socket Length* required (x)
4. Select the *Hex Tip* required
5. Combine Part Numbers as Shown Below

Example Extended Socket

LTC423T2 - 25B5

LTC42 ----- Basic Tool
3 ----- 0.95" Offset
T2 ----- 15 to 25 in-lbs. Torque Range
25 ----- 1/4" Socket Hex
B --- 1/2" Long Extended Socket
5 - 1/16" Hex Tip

H	Head Offset
3	0.95"
5	2.10"

T	Torque Range
T2	15 to 25 in - lbs
T3	26 to 55 in - lbs

X	Socket Length
B	0.5"
D	1.0"
F	1.5"
H	2.0"
L	3.0"
P	4.0"

Tool Data	
Performance Rated @	90 PSI
Air Inlet	1/4 N.P.T.
RPM	T2 = 600 T3 = 400

Hex Tip	Socket Hex	Complete Part #
1/16	7/32	LTC42(H)(T) - 21(x)5
	1/4	LTC42(H)(T) - 25(x)5
	9/32	LTC42(H)(T) - 28(x)5
	5/16	LTC42(H)(T) - 31(x)5
	11/32	LTC42(H)(T) - 34(x)5
5/64	7/32	LTC42(H)(T) - 21(x)6
	1/4	LTC42(H)(T) - 25(x)6
	9/32	LTC42(H)(T) - 28(x)6
	5/16	LTC42(H)(T) - 31(x)6
	11/32	LTC42(H)(T) - 34(x)6
3/32	3/8	LTC42(H)(T) - 37(x)6
	5/16	LTC42(H)(T) - 31(x)8
	11/32	LTC42(H)(T) - 34(x)8
	3/8	LTC42(H)(T) - 37(x)8
7/16	3/8	LTC42(H)(T) - 37(x)8
	7/16	LTC42(H)(T) - 43(x)8



Torque Control Tooling

LTC43 Series

0.33" Thick Head - (T2 - T4)



Ordering Information:

1. Select the *Head Offset* required (H)
2. Select *Nut Setting Torque* (T)
3. Select the *Socket Hex Size*
4. Select the *Socket Length* required (x)
4. Select the *Hex Tip* required
5. Combine Part Numbers as Shown Below

Example Extended Socket

LTC433T2 - 25B5

LTC43 ----- Basic Tool
3 ----- 0.95" Offset
T2 ----- 15 to 25 in-lbs. Torque Range
25 ----- 1/4" Socket Hex
B --- 1/2" Long Extended Socket
5 - 1/16" Hex Tip.

Example Flush

LTC433T2 - 25 - 5

LTC43 ----- Basic Tool
3 ----- 0.95" Offset
T2 ----- 15 to 25 in-lbs. Torque Range
25 ----- 1/4" Flush Socket Hex
5 - 1/16 Hex Tip

H	Head Offset
3	0.95"
5	2.10"
7*	3.44"

* Not available above T3

T	Torque Range
T2	15 to 25 in - lbs
T3	26 to 55 in - lbs
T4	40 to 80 in - lbs

X	Socket Length
-	flush
B	0.5"
D	1.0"
F	1.5"
H	2.0"
L	3.0"
P	4.0"

Tool Data	
Performance Rated @	90 PSI
Air Inlet	1/4 N.P.T.
RPM	T2 = 600 T3 - T4 = 400

Hex Tip	Socket Hex	Complete Part #
1/16	7/32	LTC43(H)(T) - 21(x)5
	1/4	LTC43(H)(T) - 25(x)5
	9/32	LTC43(H)(T) - 28(x)5
	5/16	LTC43(H)(T) - 31(x)5
5/64	11/32	LTC43(H)(T) - 34(x)5
	7/32	LTC43(H)(T) - 21(x)6
	1/4	LTC43(H)(T) - 25(x)6
	9/32	LTC43(H)(T) - 28(x)6
	5/16	LTC43(H)(T) - 31(x)6
3/32	11/32	LTC43(H)(T) - 34(x)6
	3/8	LTC43(H)(T) - 37(x)6
	5/16	LTC43(H)(T) - 31(x)8
	11/32	LTC43(H)(T) - 34(x)8
	3/8	LTC43(H)(T) - 37(x)8
	7/16	LTC43(H)(T) - 43(x)8



Torque Control Tooling

LTC44 Series

0.46" Thick Head - (T2 - T5)



Ordering Information:

1. Select the *Head Offset* required (H)
2. Select *Nut Setting Torque* (T)
3. Select the *Socket Hex Size*
4. Select the *Socket Length* required (x)
4. Select the *Hex Tip* required
5. Combine Part Numbers as Shown Below

Example Extended Socket

LTC443T2 - 25B5

LTC44 ----- Basic Tool
3 ----- 0.95" Offset
T2 ----- 15 to 25 in.-lbs. Torque Range
25 ----- 1/4" Socket Hex
B --- 1/2" Long Extended Socket
5 - 1/16" Hex Tip

Example Flush

LTC443T2 - 25 - 5

LTC44 ----- Basic Tool
3 ----- 0.95" Offset
T2 ----- 15 to 25 in.-lbs. Torque Range
25 ----- 1/4" Flush Socket Hex
5 - 1/16 Hex Tip

H	Head Offset
3	0.95"
5	2.10"
7	3.44"

T	Torque Range
T2	15 to 25 in - lbs
T3	26 to 55 in - lbs
T4	40 to 80 in - lbs
T5	80 to 120 in - lbs

X	Socket Length
-	flush
B	0.5"
D	1.0"
F	1.5"
H	2.0"
L	3.0"
P	4.0"

Tool Data	
Performance Rated @	90 PSI
Air Inlet	1/4 N.P.T.
RPM	T2 = 600 T3 - T4 = 400 T5 = 350

Hex Tip	Socket Hex	Complete Part #
1/16	7/32	LTC44(H)(T) - 21(x)5
	1/4	LTC44(H)(T) - 25(x)5
	9/32	LTC44(H)(T) - 28(x)5
	5/16	LTC44(H)(T) - 31(x)5
	11/32	LTC44(H)(T) - 34(x)5
5/64	7/32	LTC44(H)(T) - 21(x)6
	1/4	LTC44(H)(T) - 25(x)6
	9/32	LTC44(H)(T) - 28(x)6
	5/16	LTC44(H)(T) - 31(x)6
	11/32	LTC44(H)(T) - 34(x)6
	3/8	LTC44(H)(T) - 37(x)6
3/32	5/16	LTC44(H)(T) - 31(x)8
	11/32	LTC44(H)(T) - 34(x)8
	3/8	LTC44(H)(T) - 37(x)8
	7/16	LTC44(H)(T) - 43(x)8



Torque Control Tooling

LTC52 Series

0.25" Thick Head - (T2 - T3)



Ordering Information:

1. Select the *Head Offset* required (H)
2. Select *Nut Setting Torque* (T)
3. Select the *Socket Hex Size*
4. Select the *Socket Length* required (x)
4. Select the *Hex Tip* required
5. Combine Part Numbers as Shown Below

Example Extended Socket

LTC523T2 - 25B5

LTC52 ----- Basic Tool
3 ----- 0.95" Offset
T2 ----- 15 to 25 in-lbs. Torque Range
25 ----- 1/4" Socket Hex
B --- 1/2" Long Extended Socket
5 - 1/16" Hex Tip

H	Head Offset
3	0.95"
5	2.10"

T	Torque Range
T2	15 to 25 in - lbs
T3	26 to 55 in - lbs

X	Socket Length
B	0.5"
D	1.0"
F	1.5"
H	2.0"
L	3.0"
P	4.0"

Tool Data	
Performance Rated @	90 PSI
Air Inlet	1/4 N.P.T.
RPM	T2 = 600 T3 = 400

Hex Tip	Socket Hex	Complete Part #
1/16	7/32	LTC52(H)(T) - 21(x)5
	1/4	LTC52(H)(T) - 25(x)5
	9/32	LTC52(H)(T) - 28(x)5
	5/16	LTC52(H)(T) - 31(x)5
	11/32	LTC52(H)(T) - 34(x)5
5/64	7/32	LTC52(H)(T) - 21(x)6
	1/4	LTC52(H)(T) - 25(x)6
	9/32	LTC52(H)(T) - 28(x)6
	5/16	LTC52(H)(T) - 31(x)6
	11/32	LTC52(H)(T) - 34(x)6
3/32	3/8	LTC52(H)(T) - 37(x)6
	5/16	LTC52(H)(T) - 31(x)8
	11/32	LTC52(H)(T) - 34(x)8
	7/16	LTC52(H)(T) - 43(x)8



Torque Control Tooling

LTC53 Series

0.33" Thick Head - (T2 - T4)



Ordering Information:

1. Select the *Head Offset* required (H)
2. Select Nut Setting *Torque* (T)
3. Select the *Socket Hex Size*
4. Select the *Socket Length* required (x)
4. Select the *Hex Tip* required
5. Combine Part Numbers as Shown Below

Example Extended Socket

LTC533T2 - 25B5

LTC53 ----- Basic Tool
3 ----- 0.95" Offset
T2 ----- 15 to 25 in-lbs. Torque Range
25 ----- 1/4" Socket Hex
B --- 1/2" Long Extended Socket
5 - 1/16" Hex Tip

Example Flush

LTC533T2 - 25 - 5

LTC53 ----- Basic Tool
3 ----- 0.95" Offset
T2 ----- 15 to 25 in-lbs. Torque Range
25 ----- 1/4" Flush Socket Hex
5 - 1/16 Hex Tip

H	Head Offset
3	0.95"
5	2.10"
7*	3.44"

* Not available above T3

T	Torque Range
T2	15 to 25 in - lbs
T3	26 to 55 in - lbs
T4	40 to 80 in - lbs

X	Socket Length
-	flush
B	0.5"
D	1.0"
F	1.5"
H	2.0"
L	3.0"
P	4.0"

Tool Data	
Performance Rated @	90 PSI
Air Inlet	1/4 N.P.T.
RPM	T2 = 600 T3 - T4 = 400

Hex Tip	Socket Hex	Complete Part #
1/16	7/32	LTC53(H)(T) - 21(x)5
	1/4	LTC53(H)(T) - 25(x)5
	9/32	LTC53(H)(T) - 28(x)5
	5/16	LTC53(H)(T) - 31(x)5
	11/32	LTC53(H)(T) - 34(x)5
5/64	7/32	LTC53(H)(T) - 21(x)6
	1/4	LTC53(H)(T) - 25(x)6
	9/32	LTC53(H)(T) - 28(x)6
	5/16	LTC53(H)(T) - 31(x)6
	11/32	LTC53(H)(T) - 34(x)6
3/32	3/8	LTC53(H)(T) - 37(x)6
	5/16	LTC53(H)(T) - 31(x)8
	11/32	LTC53(H)(T) - 34(x)8
	3/8	LTC53(H)(T) - 37(x)8
	7/16	LTC53(H)(T) - 43(x)8



Torque Control Tooling

LTC54 Series

0.46" Thick Head - (T2 - T5)



Ordering Information:

1. Select the *Head Offset* required (H)
2. Select *Nut Setting Torque* (T)
3. Select the *Socket Hex Size*
4. Select the *Socket Length* required (x)
4. Select the *Hex Tip* required
5. Combine Part Numbers as Shown Below

Example Extended Socket

LTC543T2 - 25B5

LTC54 ----- Basic Tool

3 ----- 0.95" Offset

T2 ----- 15 to 25 in-lbs. Torque Range

25 ----- 1/4" Socket Hex

B --- 1/2" Long Extended Socket

5 - 1/16" Hex Tip

Example Flush

LTC543T2 - 25 - 5

LTC54 ----- Basic Tool

3 ----- 0.95" Offset

T2 ----- 15 to 25 in-lbs. Torque Range

25 ----- 1/4" Flush Socket Hex

5 - 1/16 Hex Tip

H	Head Offset
3	0.95"
5	2.10"
7	3.44"

T	Torque Range
T2	15 to 25 in - lbs
T3	26 to 55 in - lbs
T4	40 to 80 in - lbs
T5	80 to 120 in - lbs

X	Socket Length
-	flush
B	0.5"
D	1.0"
F	1.5"
H	2.0"
L	3.0"
P	4.0"

Tool Data	
Performance Rated @	90 PSI
Air Inlet	1/4 N.P.T.
RPM	T2 = 600 T3 - T4 = 400 T5 = 350

Hex Tip	Socket Hex	Complete Part #
1/16	7/32	LTC54(H)(T) - 21(x)5
	1/4	LTC54(H)(T) - 25(x)5
	9/32	LTC54(H)(T) - 28(x)5
	5/16	LTC54(H)(T) - 31(x)5
	11/32	LTC54(H)(T) - 34(x)5
5/64	7/32	LTC54(H)(T) - 21(x)6
	1/4	LTC54(H)(T) - 25(x)6
	9/32	LTC54(H)(T) - 28(x)6
	5/16	LTC54(H)(T) - 31(x)6
	11/32	LTC54(H)(T) - 34(x)6
3/32	3/8	LTC54(H)(T) - 37(x)6
	5/16	LTC54(H)(T) - 31(x)8
	11/32	LTC54(H)(T) - 34(x)8
	3/8	LTC54(H)(T) - 37(x)8
	7/16	LTC54(H)(T) - 43(x)8



Torque Control Tooling

LTC600 Series

(T2 - T5)



Ordering Information:

1. Select the *Head Offset* required (H)
2. Select *Nut Setting Torque* (T)
3. Select the *Socket Hex Size*
4. Select the *Socket Length* required (x)
4. Select the *Hex Tip* required
5. Combine Part Numbers as Shown Below

Example: **LTC600T2 - 25D5**

LTC600 ----- Basic Tool
T2 ----- 15 to 25 in-lbs. Torque Range
25 ----- 1/4" Socket Hex
D --- 1" Long Extended Socket
5 - 1/16" Hex Tip

T	Torque Range
T2	15 to 25 in - lbs
T3	26 to 55 in - lbs
T4	40 to 80 in - lbs
T5	80 to 120 in - lbs

X	Socket Length
D	1.0"
F	1.5"
H	2.0"
L	3.0"
P	4.0"

Tool Data	
Performance Rated @	90 PSI
Air Inlet	1/4 N.P.T.
RPM	T2 = 600 T3 - T4 = 400 T5 = 350

Hex Tip	Socket Hex	Complete Part #
1/16	7/32	LTC600(T) - 21(x)5
	1/4	LTC600(T) - 25(x)5
	9/32	LTC600(T) - 28(x)5
	5/16	LTC600(T) - 31(x)5
	11/32	LTC600(T) - 34(x)5
5/64	7/32	LTC600(T) - 21(x)6
	1/4	LTC600(T) - 25(x)6
	9/32	LTC600(T) - 28(x)6
	5/16	LTC600(T) - 31(x)6
	11/32	LTC600(T) - 34(x)6
	3/8	LTC600(T) - 37(x)6
3/32	5/16	LTC600(T) - 31(x)8
	11/32	LTC600(T) - 34(x)8
	3/8	LTC600(T) - 37(x)8
	7/16	LTC600(T) - 43(x)8



Frangible Collar Tooling



Hi-Lok[®] Type Fastener Installation Tools

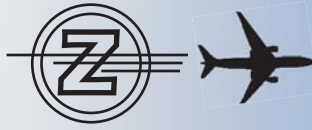
Quick Release System (QRS) 04
 QRS Socket Assemblies 05
 L-Head Assemblies
 L-Head Assembly, Short with Extended Socket 06
 L-Head Assembly, Short without Extended Socket 06
 L-Head Assembly, Long with Extended Socket 07
 L-Head Assembly, Long without Extended Socket 07
 Straight Drive Assembly 08
 Straight Drive Socket Assemblies 08
 Ratchet Assemblies
 Straight Ratchet without Extended Socket 09
 Straight Ratchet with Extended Socket 09
 Offset Ratchet without Extended Socket 10
 Offset Ratchet with Extended Socket 10
 Ratchet Hand Tools 11
 Glossary 11 - 12

Quick Change System

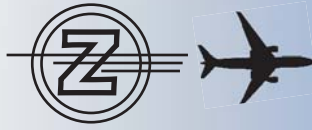
Hi-Lok[®] Type Fastener Tools

Quick Change System Introduction 14
 Quick Change Removal Socket 15
 Quick Change Installation Socket 16
 Quick Change Installation, Hand Tool Assembly 17
 Quick Change Removal, Hand Tool Assembly 18
 Quick Change Pneumatic Tool Kits 19 - 21
 Glossary 22





Hi-Lok[®] Type Fastener Installation Tools



Quick Release System

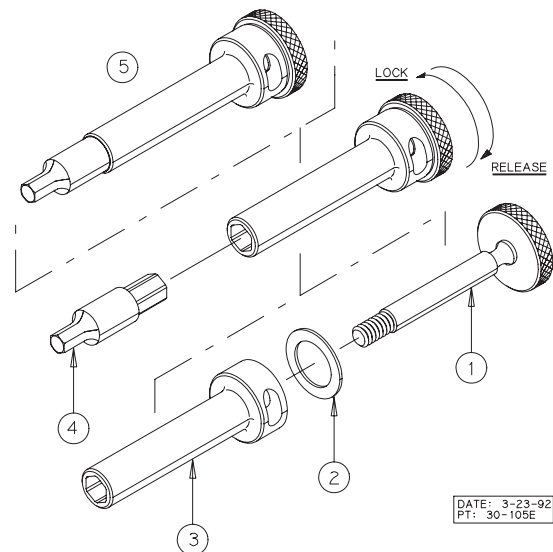
The Quick-Release System (QRS) is an innovative, proprietary system offered by LOK-FAST to install Hi-loks and other non-interference fit fasteners. QRS is a hex tip holder assembly providing a higher strength quick-change hex tip which allows the operator to change the tip key both quickly and at the work station with no additional tooling or conversion kits. This process eliminates costly down time and removes the need to return a tool to the tool crib to replace a broken hex tip.

Benefits of the Quick-Release System (QRS)

- Fewer Holders - Only One Holder for All Hex Keys
- Quick Change of Hex Keys with tool fully assembled
- No Tools or Conversion Kits Required
- Tips Will *Not* Jam in the Holder
- Sealant Contamination is Minimized
- Economical to Implement - May Be Used With Existing Drivers

Part Description

1. Retaining Shaft
2. Nylon Washer
3. Hex Tip Holder
4. Hex Tip
5. QRS Holder Assembly



How It Works:

The hex tip is held into a fitted holder by a threaded retaining shaft. The hex tip is drawn into the holder when the retaining shaft is rotated clockwise, and is expelled when shaft is rotated counterclockwise. If the hex tip breaks this action prevents the tip from being jammed into the holder.

Installation:

1. Slide retaining shaft through the back of the holder
2. Insert holder assembly into the drive gear or socket
3. Insert spring into the slot in the assembly, this will hold the retaining shaft in place.
4. The hex tip can now be inserted. Do not overtighten. The nylon washer will prevent the shaft from vibrating loose
5. Installation is now complete

To Replace Hex Key:

1. Rotate the retaining shaft until the hex tip falls out
2. Replace and tighten retaining shaft

To Replace Hex Key Size:

Follow same procedure as when replacing broken hex tip



Quick Release System



How To Order:

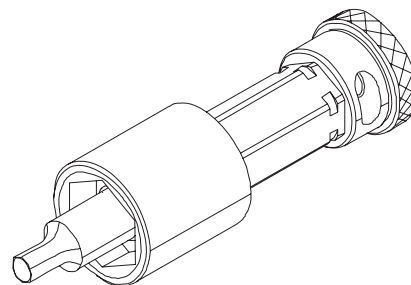
1. Determine the hex recess size of the fastener pin to be installed (column 1)
2. Determine the hex size of the driving collar to be installed onto the pin (column 2).
3. Select the socket length required. Use a dash number equal or greater than the extension required.

Example: **QSA281-05-5**

- socket hex size is 9/32"
- socket length 1/2"
- hex tip size is 1/16"

Part number includes the following

1. 1/2" retaining shaft
2. 1/2" holder
3. Retaining clip
4. 1/2" long extended socket with 9/32" hex recess
5. 5/64" QRS hex tip

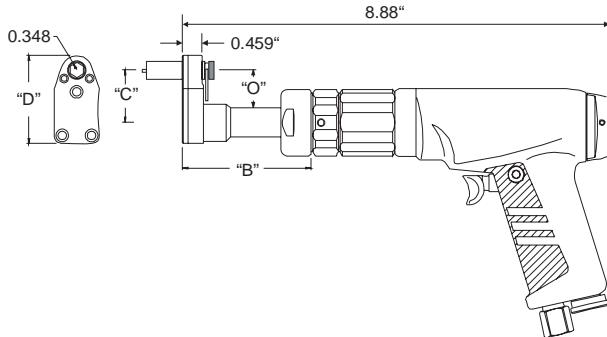


Hex Tip	Socket Hex	Complete Part #	Socket	Holder	Retaining Shaft
1/16" QRK - 5	7/32	QSA218 - (E) - 5	HS - 22 - (E)	QRH - (E)	QRS - (E)
	1/4	QSA250 - (E) - 5	HS - 25 - (E)		
	9/32	QSA281 - (E) - 5	HS - 28 - (E)		
	5/16	QSA312 - (E) - 5	HS - 31 - (E)		
	11/32	QSA343 - (E) - 5	HS - 34 - (E)		
5/64" QRK - 6	7/32	QSA218 - (E) - 6	HS - 22 - (E)	QRH - (E)	QRS - (E)
	1/4	QSA250 - (E) - 6	HS - 25 - (E)		
	9/32	QSA281 - (E) - 6	HS - 28 - (E)		
	5/16	QSA312 - (E) - 6	HS - 31 - (E)		
	11/32	QSA343 - (E) - 6	HS - 34 - (E)		
3/32" QRK - 8	3/8	QSA375 - (E) - 6	HS - 37 - (E)	QRH - (E)	QRS - (E)
	5/16	QSA312 - (E) - 8	HS - 31 - (E)		
	11/32	QSA343 - (E) - 8	HS - 34 - (E)		
	7/16	QSA437 - (E) - 8	HS - 43 - (E)		
1/8" QRK - 10	9/16	QSA562 - (E) - 10	HS - 56 - (E)	QRH - (E)	QRS - (E)
	1/2	QSA500 - (E) - 10	HS - 50 - (E)		
	7/16	QSA437 - (E) - 10	HS - 43 - (E)		

(E)	Socket Length
04	0.25"
05	0.50"
07	0.75"
10	1.00"
15	1.50"
20	2.00"
25	2.50"
30	3.00"



L-Head Assembly, Short Tube Reversible With Extended Socket



To Order:

1. Determine the RPM required.
2. Determine the needed offset.
2. Determine the QRS Socket Hex Size needed.
3. Determine the length of the Required Socket.



Example: **IQLA35S22-10-5B**

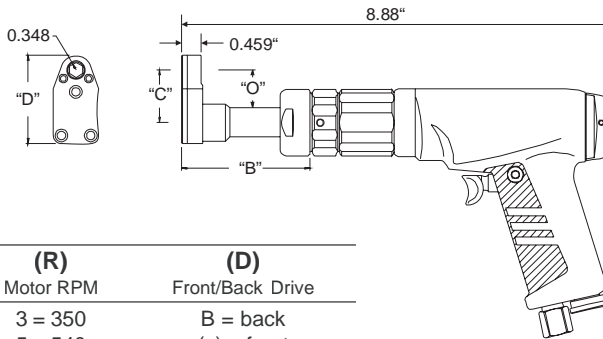
- IQLA : Master Part Number
- 350 RPM motor.
- 5 gear L-Head.
- Short Tube Length.
- 7/32 socket.
- 1.0" extended socket, with QRS System
- Back drive.

(R) Motor RPM	(E) Socket Length	(D) Front/Back Drive
3 = 350	1 = flush	B = back
5 = 540	04 = 0.25"	() = front
	05 = 0.50"	
	07 = 0.75"	
	10 = 1.0"	
	15 = 1.5"	
	20 = 2.0"	
	25 = 2.5"	
	30 = 3.0"	

(G) Offset Number	"B"	"C"	"D"	"O"
3		1.30	2.20	0.88
4	2.125	2.00	2.80	1.70
5		2.80	3.60	2.40
7		4.30	5.10	3.90

Hex Tip	Socket Hex	Complete Tool Part #	Head Assy #
1/16 QRK - 5	7/32	IQLA(R)(G)S22 - (E) - 5(D)	IQL(G)S22 - (E) - 5
	1/4	IQLA(R)(G)S25 - (E) - 5(D)	IQL(G)S25 - (E) - 5
	9/32	IQLA(R)(G)S28 - (E) - 5(D)	IQL(G)S28 - (E) - 5
	5/16	IQLA(R)(G)S31 - (E) - 5(D)	IQL(G)S31 - (E) - 5
5/64 QRK - 6	11/32	IQLA(R)(G)S34 - (E) - 5(D)	IQL(G)S34 - (E) - 5
	7/32	IQLA(R)(G)S22 - (E) - 6(D)	IQL(G)S22 - (E) - 6
	1/4	IQLA(R)(G)S25 - (E) - 6(D)	IQL(G)S25 - (E) - 6
	9/32	IQLA(R)(G)S28 - (E) - 6(D)	IQL(G)S28 - (E) - 6
	5/16	IQLA(R)(G)S31 - (E) - 6(D)	IQL(G)S31 - (E) - 6
3/32 QRK - 8	11/32	IQLA(R)(G)S34 - (E) - 6(D)	IQL(G)S34 - (E) - 6
	3/8	IQLA(R)(G)S37 - (E) - 6(D)	IQL(G)S37 - (E) - 6
	5/16	IQLA(R)(G)S31 - (E) - 8(D)	IQL(G)S31 - (E) - 8
	11/32	IQLA(R)(G)S34 - (E) - 8(D)	IQL(G)S34 - (E) - 8
7/16	3/8	IQLA(R)(G)S37 - (E) - 8(D)	IQL(G)S37 - (E) - 8
	5/16	IQLA(R)(G)S43 - (E) - 8(D)	IQL(G)S43 - (E) - 8

L-Head Assembly, Short Tube Reversible Flush w/ Flush Drive Socket



To Order:

1. Determine the RPM required.
2. Determine the needed offset.
2. Determine the Drive Socket Hex Size needed.

Example: **IL3-5-22-S**

- 350 RPM motor
- 5 gear L-Head
- 7/32 flush socket
- Short tube length

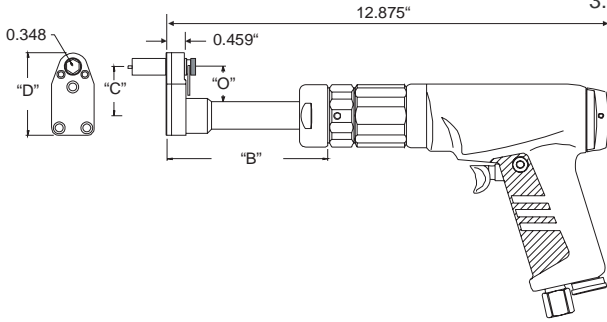
(R) Motor RPM	(D) Front/Back Drive
3 = 350	B = back
5 = 540	() = front

(G) Offset Number	"B"	"C"	"D"	"O"
3		1.30	2.20	0.88
4	2.125	2.00	2.80	1.70
5		2.80	3.60	2.40
7		4.30	5.10	3.90

Drive Gear	Complete Part #	Head Assy #
7/32	IL(R)(G) - 22 - S	ILH(G) - 22 - S
1/4	IL(R)(G) - 25 - S	ILH(G) - 25 - S
9/32	IL(R)(G) - 28 - S	ILH(G) - 28 - S
5/16	IL(R)(G) - 31 - S	ILH(G) - 31 - S
11/32	IL(R)(G) - 34 - S	ILH(G) - 34 - S
3/8	IL(R)(G) - 37 - S	ILH(G) - 37 - S



L-Head Assembly, Long Tube Reversible With Extended Socket



To Order:

1. Determine the RPM required.
2. Determine the needed offset.
3. Determine the QRS Socket Hex Size needed.
3. Determine the length of the Required Socket .



Example: IQLA55L22-5-5

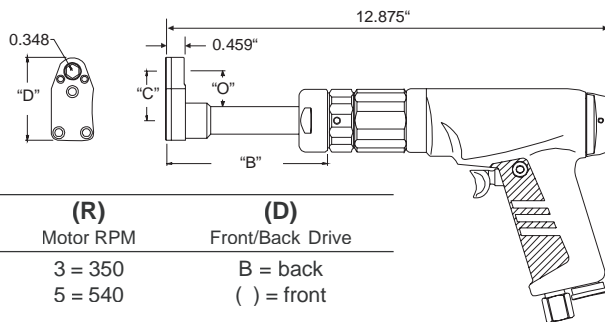
- IQLA : Master Part Number.
- 450 RPM motor.
- 5 gear L-Head.
- Long Tube Length.
- 7/32 socket.
- 0.5" extended socket, with QRS System
- Front drive.

(R) Motor RPM	(E) Socket Length	(D) Front/Back Drive
3 = 350	1 = flush	B =
5 = 540	04 = 0.25"	() = front
	05 = 0.50"	
	07 = 0.75"	
	10 = 1.0"	
	15 = 1.5"	
	20 = 2.0"	
	25 = 2.50"	
	30 = 3.0"	

(G) Offset Number	"B"	"C"	"D"	"O"
3		1.30	2.20	0.88
4	6.00	2.00	2.80	1.70
5		2.80	3.60	2.40
7		4.30	5.10	3.90

Hex Tip	Socket Hex	Complete Tool Part #	Head Assy #
1/16 QRK - 5	7/32	IQLA(R)(G)L22 - (E) - 5(D)	IQL(G)L22 - (E) - 5
	1/4	IQLA(R)(G)L25 - (E) - 5(D)	IQL(G)L25 - (E) - 5
	9/32	IQLA(R)(G)L28 - (E) - 5(D)	IQL(G)L28 - (E) - 5
	5/16	IQLA(R)(G)L31 - (E) - 5(D)	IQL(G)L31 - (E) - 5
	11/32	IQLA(R)(G)L34 - (E) - 5(D)	IQL(G)L34 - (E) - 5
5/64 QRK - 6	7/32	IQLA(R)(G)L22 - (E) - 6(D)	IQL(G)L22 - (E) - 6
	1/4	IQLA(R)(G)L25 - (E) - 6(D)	IQL(G)L25 - (E) - 6
	9/32	IQLA(R)(G)L28 - (E) - 6(D)	IQL(G)L28 - (E) - 6
	5/16	IQLA(R)(G)L31 - (E) - 6(D)	IQL(G)L31 - (E) - 6
	11/32	IQLA(R)(G)L34 - (E) - 6(D)	IQL(G)L34 - (E) - 6
3/8	3/8	IQLA(R)(G)L37 - (E) - 6(D)	IQL(G)L37 - (E) - 6
	5/16	IQLA(R)(G)L31 - (E) - 8(D)	IQL(G)L31 - (E) - 8
	11/32	IQLA(R)(G)L34 - (E) - 8(D)	IQL(G)L34 - (E) - 8
3/32 QRK - 8	3/8	IQLA(R)(G)L37 - (E) - 8(D)	IQL(G)L37 - (E) - 8
	7/16	IQLA(R)(G)L43 - (E) - 8(D)	IQL(G)L43 - (E) - 8

L-Head Assembly, Long Tube Reversible Flush w/ Drive Socket



To Order:

1. Determine the RPM required.
2. Determine the needed offset.
2. Determine the Drive Socket Hex Size needed.

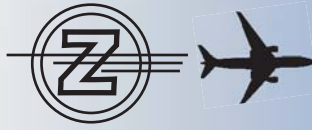
Example: IL3-5-22-L

- 350 RPM motor
- 5 gear L-Head
- 7/32 flush socket
- Long tube length

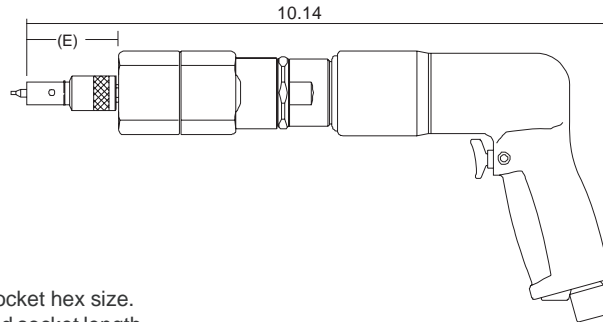
(R) Motor RPM	(D) Front/Back Drive
3 = 350	B = back
5 = 540	() = front

(G) Offset Number	"B"	"C"	"D"	"O"
3		1.30	2.20	0.88
4	6.00	2.00	2.80	1.70
5		2.80	3.60	2.40
7		4.30	5.10	3.90

Drive Gear	Complete Part #	Head Assy #
7/32	IL(R)(G) - 22 - L	ILH(G) - 22 - L
1/4	IL(R)(G) - 25 - L	ILH(G) - 25 - L
9/32	IL(R)(G) - 28 - L	ILH(G) - 28 - L
5/16	IL(R)(G) - 31 - L	ILH(G) - 31 - L
11/32	IL(R)(G) - 34 - L	ILH(G) - 34 - L
3/8	IL(R)(G) - 37 - L	ILH(G) - 37 - L



Straight Drive



To Order:

1. Select the required socket hex size.
2. Determine the required socket length.
3. Determine the hex tip size.

Example: **SDA4 - 22 - 2 - 5**

- 400 rpm motor.
- 2.0" long socket with QRS System.
- Including 1/16" hex tip.

(E) Length
2 = 2.0"
4 = 4.0"



Hex Tip	Socket Hex	Complete Tool Part #
1/16 QRK - 5	7/32	SDA4 - 22 - (E) - 5
	1/4	SDA4 - 25 - (E) - 5
	9/32	SDA4 - 28 - (E) - 5
	5/16	SDA4 - 31 - (E) - 5
	11/32	SDA4 - 34 - (E) - 5
5/64 QRK - 6	7/32	SDA4 - 22 - (E) - 6
	1/4	SDA4 - 25 - (E) - 6
	9/32	SDA4 - 28 - (E) - 6
	5/16	SDA4 - 31 - (E) - 6
	11/32	SDA4 - 34 - (E) - 6
3/32 QRK - 8	3/8	SDA4 - 37 - (E) - 6
	5/16	SDA4 - 31 - (E) - 8
	11/32	SDA4 - 34 - (E) - 8
	3/8	SDA4 - 37 - (E) - 8
	7/16	SDA4 - 43 - (E) - 8

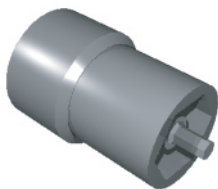
Straight Drive Socket

To Order:

1. Select the required hex size of the socket.
2. Determine the required socket length.
2. Select the size for the hex tip.

Example: **SDSA22-2-5**

- 2.0" long socket, with QRS System.
- Includes 1/16" hex tip.



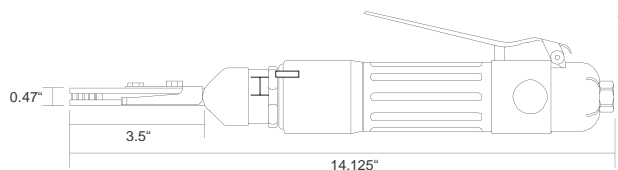
(E) Length
2 = 2.0"
4 = 4.0"

Hex Tip	Socket Hex	Complete Tool Part #	Socket	Holder Assembly
1/16 QRK - 5	7/32	SDSA22(E)5	SDS - 22(E)	SDQRA
	1/4	SDSA25(E)5	SDS - 25(E)	
	9/32	SDSA28(E)5	SDS - 28(E)	
	5/16	SDSA31(E)5	SDS - 31(E)	
	11/32	SDSA34(E)5	SDS - 34(E)	
5/64 QRK - 6	7/32	SDSA22(E)6	SDS - 22(E)	SDQRA
	1/4	SDSA25(E)6	SDS - 25(E)	
	9/32	SDSA28(E)6	SDS - 28(E)	
	5/16	SDSA31(E)6	SDS - 31(E)	
	11/32	SDSA34(E)6	SDS - 34(E)	
3/32 QRK - 8	3/8	SDSA37(E)6	SDS - 37(E)	SDQRA
	5/16	SDSA31(E)8	SDS - 31(E)	
	11/32	SDSA34(E)8	SDS - 34(E)	
	3/8	SDSA37(E)8	SDS - 37(E)	
	7/16	SDSA43(E)8	SDS - 43(E)	



Straight Ratchet Head

Flush



To Order:

1. Specify the RPM rating of the motor.
2. Determine the drive socket hex size.

Example: **SR10 - 28**

- 1000 RPM motor.
- 9/32" flush socket.

(R) Motor RPM	Socket RPM	Socket Torque @ 90 PSI
4 = 400	55	489 in lbs
6 = 600	85	204 in lbs
10 = 1000	145	115 in lbs
15 = 1500	215	97 in lbs
30 = 3000	425	44 in lbs

Socket Hex	Complete Tool Part #	Head Assy #
7/32	SR(R) - 22	SRHA8200 - 22
1/4	SR(R) - 25	SRHA8200 - 25
9/32	SR(R) - 28	SRHA8200 - 28
5/16	SR(R) - 31	SRHA8200 - 31
11/32	SR(R) - 34	SRHA8200 - 34
3/8	SR(R) - 37	SRHA8200 - 37
7/16	SR(R) - 43	SRHA8200 - 43
9/32 thru hex	SR(R) - 932	SRHA8200 - 932

Straight Ratchet Head

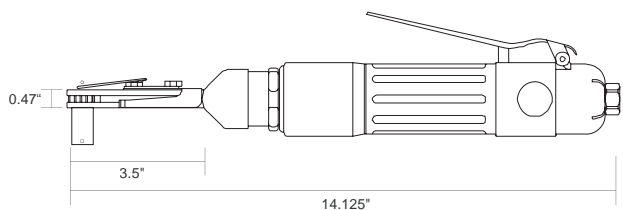
With Flush or Extended Socket

To Order:

1. Determine the RPM required.
2. Determine the required socket hex size.
2. Determine the Drive Socket Size needed.

Example: **QSRA6 - 22 - 10 - 5**

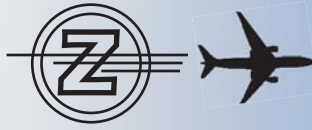
- 600 RPM motor.
- 7/32" socket.
- 1.0" extended socket with QRS System.
- Includes 1/16" hex tip.



(R) Motor RPM	Socket RPM	Socket Torque @ 90 PSI
4 = 400	55	489 in lbs
6 = 600	85	204 in lbs
10 = 1000	145	115 in lbs
15 = 1500	215	97 in lbs
30 = 3000	425	44 in lbs

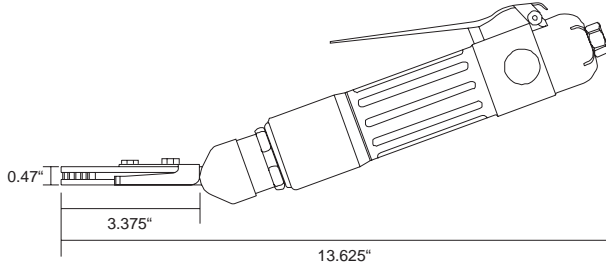
(E) Socket Length
1 = flush
4 = 0.25"
5 = 0.50"
7 = 0.75"
10 = 1.0"
15 = 1.5"
20 = 2.0"
25 = 2.50"
30 = 3.0"

Hex Tip	Socket Hex	Complete Tool Part #	Head Assy #
1/16 QRK - 5	7/32	QSRA(R) - 22 - (E) - 5	QSR - 22 - (E) - 5
	1/4	QSRA(R) - 25 - (E) - 5	QSR - 25 - (E) - 5
	9/32	QSRA(R) - 28 - (E) - 5	QSR - 28 - (E) - 5
	5/16	QSRA(R) - 31 - (E) - 5	QSR - 31 - (E) - 5
	11/32	QSRA(R) - 34 - (E) - 5	QSR - 34 - (E) - 5
5/64 QRK - 6	7/32	QSRA(R) - 22 - (E) - 6	QSR - 22 - (E) - 6
	1/4	QSRA(R) - 25 - (E) - 6	QSR - 25 - (E) - 6
	9/32	QSRA(R) - 28 - (E) - 6	QSR - 28 - (E) - 6
	5/16	QSRA(R) - 31 - (E) - 6	QSR - 31 - (E) - 6
	11/32	QSRA(R) - 34 - (E) - 6	QSR - 34 - (E) - 6
3/32 QRK - 8	3/8	QSRA(R) - 37 - (E) - 6	QSR - 37 - (E) - 6
	5/16	QSRA(R) - 31 - (E) - 8	QSR - 31 - (E) - 8
	11/32	QSRA(R) - 34 - (E) - 8	QSR - 34 - (E) - 8
	3/8	QSRA(R) - 37 - (E) - 8	QSR - 37 - (E) - 8
	7/16	QSRA(R) - 43 - (E) - 8	QSR - 43 - (E) - 8



20° Offset Ratchet Head

Flush



(R) Motor RPM	Socket RPM	Socket Torque @ 90 PSI
4=400	55	489 in lbs
6=600	85	204 in lbs
10=1000	145	115 in lbs
15=1500	215	97 in lbs
20=2000	285	85 in lbs

To Order:

1. Specify the RPM rating of the motor.
2. Determine the drive socket hex size.



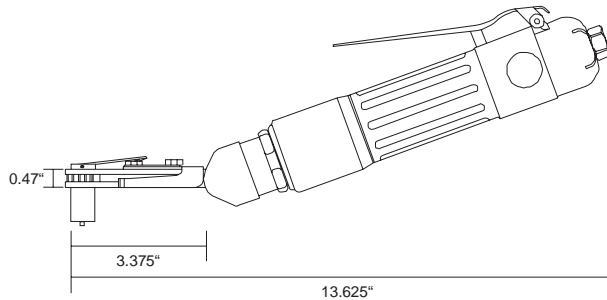
Example: **R1000 - 28**

- 1000 RPM motor.
- 9/32" flush socket.

Socket Hex	Complete Tool Part #	Head Assy #
7/32	R(R) - 22	RHA8200 - 22
1/4	R(R) - 25	RHA8200 - 25
9/32	R(R) - 28	RHA8200 - 28
5/16	R(R) - 31	RHA8200 - 31
11/32	R(R) - 34	RHA8200 - 34
3/8	R(R) - 37	RHA8200 - 37
7/16	R(R) - 43	RHA8200 - 43
9/32 thru hex	R(R) - 932	RHA8200 - 932

20° Offset Ratchet Head

With Flush or Extended Socket



(R) Motor RPM	Socket RPM	Socket Torque @ 90 PSI
4=400	55	489 in lbs
6=600	85	204 in lbs
10=1000	145	115 in lbs
15=1500	215	97 in lbs
20=2000	285	85 in lbs

(E) Socket Length
1 = flush
4 = 0.25"
5 = 0.50"
7 = 0.75"
10 = 1.0"
15 = 1.5"
20 = 2.0"
25 = 2.50"
30 = 3.0"

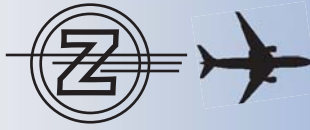
To Order:

1. Determine the RPM required.
2. Determine the required Socket Hex size.
2. Determine the socket length and hex key size.

Example: **QRA6 - 22 - 10 - 5**

- 600 RPM motor.
- 7/32" socket.
- 1.0" extended socket with QRS System.
- Including 1/16" hex tip.

Hex Tip	Socket Hex	Complete Tool Part #	Head Assy #
1/16 QRK - 5	7/32	QRA(R) - 22 - (E) - 5	QR - 22 - (E) - 5
	1/4	QRA(R) - 25 - (E) - 5	QR - 25 - (E) - 5
	9/32	QRA(R) - 28 - (E) - 5	QR - 28 - (E) - 5
	5/16	QRA(R) - 31 - (E) - 5	QR - 31 - (E) - 5
	11/32	QRA(R) - 34 - (E) - 5	QR - 34 - (E) - 5
5/64 QRK - 6	7/32	QRA(R) - 22 - (E) - 6	QR - 22 - (E) - 6
	1/4	QRA(R) - 25 - (E) - 6	QR - 25 - (E) - 6
	9/32	QRA(R) - 28 - (E) - 6	QR - 28 - (E) - 6
	5/16	QRA(R) - 31 - (E) - 6	QR - 31 - (E) - 6
	11/32	QRA(R) - 34 - (E) - 6	QR - 34 - (E) - 6
3/8 QRK - 8	3/8	QRA(R) - 37 - (E) - 6	QR - 37 - (E) - 6
	5/16	QRA(R) - 31 - (E) - 8	QR - 31 - (E) - 8
	11/32	QRA(R) - 34 - (E) - 8	QR - 34 - (E) - 8
	3/8	QRA(R) - 37 - (E) - 8	QR - 37 - (E) - 8
	7/16	QRA(R) - 43 - (E) - 8	QR - 43 - (E) - 8

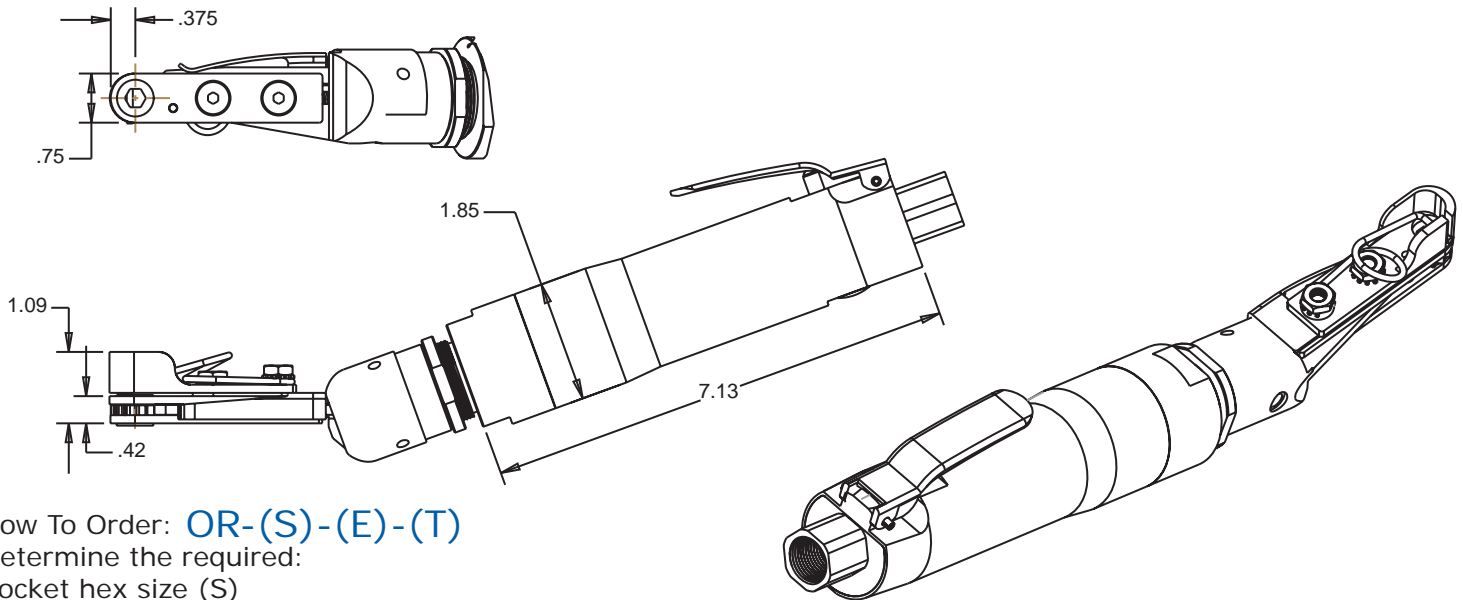


20° Offset Ratchet Tool for Frangible Collars

With Flush or Extended Socket

Fasteners from 5 to 14

HI-LOK Ratchet Spring Saver Reaction Bracket



How To Order: **OR-(S)-(E)-(T)**

Determine the required:

Socket hex size (S)

Socket Length (E)

Hex tip (T)

Example: OR-28-10-6

Tool configuration 7/32" socket, 1.0" extended socket and 5/64" hex tip.

Socket (S)		Socket Length (E)		HEX TIP (T)	
7/32	22	1	FLUSH	5	1/16
1/4	25	4	.25"	6	5/64
9/32	28	5	.50"	8	3/32
5/16	31	7	.75"	10	1/8
11/32	34	10	1.0"	12	5/32
3/8	37	15	1.5"	14	3/16
7/16	43	20	2.0"		
1/2"	50	25	2.5"		
9/16"	56	30	3.0"		
5/8"	62				

SPECIFICATIONS

Torque:	400 in-lbs
Socket RPM:	225 -250 RPM
Air Motor Power:	1HP
Operative Air Pressure:	90 - 120 PSI
Air Consumption:	53 S.C.F.M
Noise:	85 dB scale A
Weight:	4 lbs
Air Inlet:	3/8"

For fasteners sizes 5 - 8 uses Zephyr QRS[®]. Quick Release HexKey System.

For fasteners sizes 10 - 14 uses new Zephyr High Strength and High Torque Power HexKey.

Our new Spring Saver Reaction Bracket, eliminates down time due to spring failure and solves associated problems with non-interference fit installation.

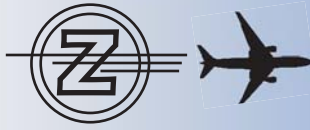
New antivibration glove handle from special PVC.

ZEPHYR Manufacturing Co., Inc

201 Hindry Avenue

Inglewood, CA 90301-1519

Tel. 310-410-4907 ■ Fax. 310-410-2913 ■ Email: sales@zephyrtool.com ■ www.zephyrtool.com

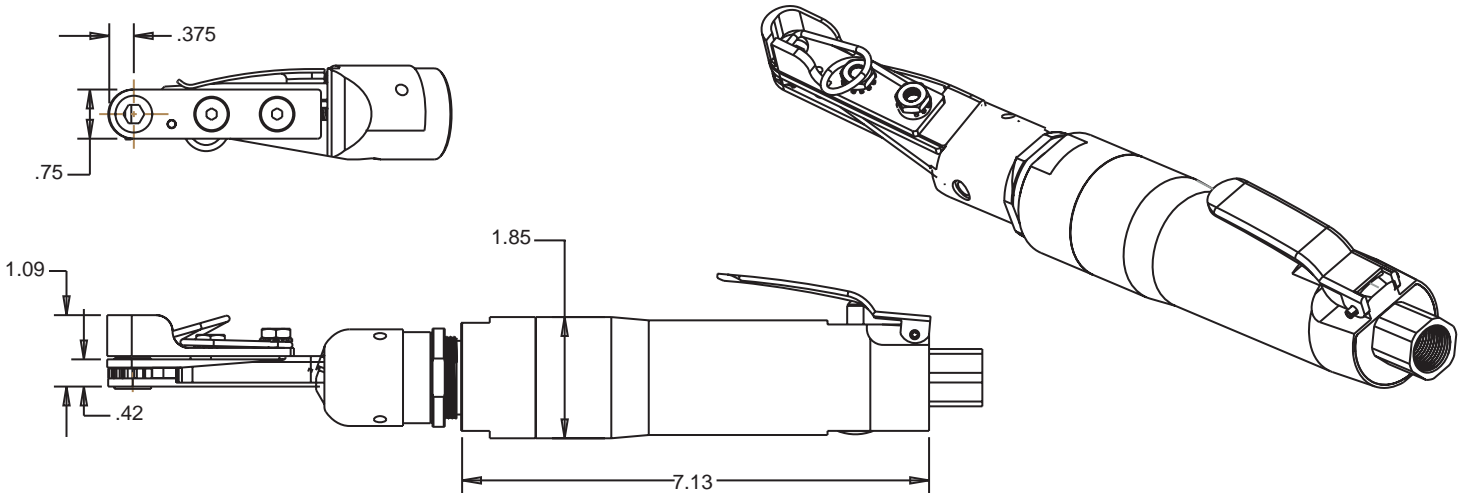


Straight Ratchet Tool for Frangible Collars

With Flush or Extended Socket

Fasteners from 5 to 14

HI-LOK Ratchet Spring Saver Reaction Bracket



How To Order: **R-(S)-(E)-(T)**

Determine the required:

Socket hex size (S)

Socket Length (E)

Hex tip (T)

Example: R-28-10-6

Tool configuration 7/32" socket, 1.0" extended socket and 5/64" hex tip.

Socket (S)		Socket Length (E)		HEX TIP (T)	
7/32	22	1	FLUSH	5	1/16
1/4	25	4	.25"	6	5/64
9/32	28	5	.50"	8	3/32
5/16	31	7	.75"	10	1/8
11/32	34	10	1.0"	12	5/32
3/8	37	15	1.5"	14	3/16
7/16	43	20	2.0"		
1/2"	50	25	2.5"		
9/16"	56	30	3.0"		
5/8"	62				

SPECIFICATIONS

Torque:	400 in-lbs
Socket RPM:	225 - 250 RPM
Air Motor Power:	1HP
Operative Air Pressure:	90 - 120 PSI
Air Consumption:	53 S.C.F.M
Noise:	85 dB scale A
Weight:	4 lbs
Air Inlet:	3/8"

For fasteners sizes 5 - 8 uses Zephyr QRS[®]. Quick Release HexKey System.
 For fasteners sizes 10 - 14 uses new Zephyr High Strength and High Torque Power HexKey.

Our new Spring Saver Reaction Bracket, eliminates down time due to spring failure and solves associated problems with non-interference fit installation.

New antivibration glove handle from special PVC.

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201 Hindry Avenue

Inglewood, CA 90301-1519

Tel. 310-410-4907 ■ Fax. 310-410-2913 ■ Email: sales@zephyrtool.com ■ www.zephyrtool.com



Hi-Lok Nut Runner

LHL600 Series

(Stall Torque)



Ordering Information:

1. Select the *Head Offset* required (H)
2. Select the *Socket Hex Size*
3. Select the *Socket Length* required (x)
4. Select the *Hex Tip* required
5. Combine Part Numbers as Shown Below

Example: **LHL600 - 25D5**

LHL600 ----- Basic Tool
25 ----- 1/4" Socket Hex
D --- 1" Long Extended Socket
5 - 1/16" Hex Tip

X	Socket Length
D	1.0"
F	1.5"
H	2.0"
L	3.0"
P	4.0"

Tool Data	
Performance Rated @	90 PSI
Air Inlet	1/4 N.P.T.
RPM	850
Max Torque	55 in-lb

Hex Tip	Socket Hex	Complete Part #
1/16	7/32	LHL600 - 21(x)5
	1/4	LHL600 - 25(x)5
	9/32	LHL600 - 28(x)5
	5/16	LHL600 - 31(x)5
	11/32	LHL600 - 34(x)5
5/64	7/32	LHL600 - 21(x)6
	1/4	LHL600 - 25(x)6
	9/32	LHL600 - 28(x)6
	5/16	LHL600 - 31(x)6
	11/32	LHL600 - 34(x)6
3/32	3/8	LHL600 - 37(x)6
	5/16	LHL600 - 31(x)8
	11/32	LHL600 - 34(x)8
	3/8	LHL600 - 37(x)8
	7/16	LHL600 - 43(x)8



Hi-Lok Nut Runner

LHL700 Series

(Stall Torque)



Ordering Information:

1. Select the *Socket Hex Size*
2. Select the *Hex Tip* required
3. Combine Part Numbers as Shown Below

Example: **LHL700 - 25D5**

LHL700 ----- Basic Tool
25 ----- 1/4" Socket Hex
5 ----- 1/16" Hex Tip

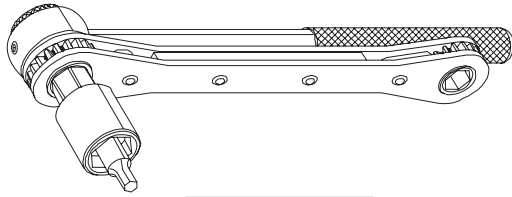
X	Socket Length
D	1.0"

Hex Tip	Socket Hex	Complete Part #
1/16	7/32	LHL700 - 21(D)5
	1/4	LHL700 - 25(D)5
	9/32	LHL700 - 28(D)5
	5/16	LHL700 - 31(D)5
	11/32	LHL700 - 34(D)5
5/64	7/32	LHL700 - 21(D)6
	1/4	LHL700 - 25(D)6
	9/32	LHL700 - 28(D)6
	5/16	LHL700 - 31(D)6
	11/32	LHL700 - 34(D)6
3/32	3/8	LHL700 - 37(D)6
	5/16	LHL700 - 31(D)8
	11/32	LHL700 - 34(D)8
	3/8	LHL700 - 37(D)8
	7/16	LHL700 - 43(D)8

Tool Data	
Performance Rated @	90 PSI
Air Inlet	1/4 N.P.T.
RPM	850
Max Torque	55 in-lb



Ratchet Hand Tools



To Order:

1. Determine the socket hex and the socket length.
2. Determine the size of the hex key.

Example: **QHRA - 22 - 10 - 5**

- 7/32" socket.
- 1.0" extended socket with QRS System.
- Including 1/16" hex tip

(E) Socket Length
1 = flush
4 = 0.25"
5 = 0.50"
7 = 0.75"
10 = 1.0"
15 = 1.5"
20 = 2.0"
25 = 2.50"
30 = 3.0"

Hex Tip	Socket Hex	Complete Part #
1/16 QRK - 5	7/32	QHRA - 22 - (E) - 5
	1/4	QHRA - 25 - (E) - 5
	9/32	QHRA - 28 - (E) - 5
	5/16	QHRA - 31 - (E) - 5
5/64 QRK - 6	11/32	QHRA - 34 - (E) - 5
	7/32	QHRA - 22 - (E) - 6
	1/4	QHRA - 25 - (E) - 6
	9/32	QHRA - 28 - (E) - 6
	5/16	QHRA - 31 - (E) - 6
3/32 QRK - 8	11/32	QHRA - 34 - (E) - 6
	3/8	QHRA - 37 - (E) - 6
	5/16	QHRA - 31 - (E) - 8
	11/32	QHRA - 34 - (E) - 8
3/8	3/8	QHRA - 37 - (E) - 8
	7/16	QHRA - 43 - (E) - 8

Glossary for QRS Systems

20° or 90° Geared Angle Head: An offset internal gear driven unit in which driving torque is transmitted to hex gear or socket accessory assemblies held at angles of 20 or 90 degrees to the axis of the motor spindle.

20° or 90° Offset Angle Head Ratchet: Rotational torque of the air motor is converted into pulses through an internal cam which transmits the torque via the pawl to the drive gear which may be configured flush or with extended socket accessory assemblies to drive frangible collars at an angle of 20 or 90 degrees to the axis of the motor spindle.

Back Drive: The socket and other accessory assemblies are attached on the opposite side of the geared head for limited access applications. The rotation of the motor must be opposite to that of the conventional side for identical gear trains. This is not an option for offset ratchet drivers.

Collar: The body component of a frangible type threaded fastener which remains on the threaded pin after the hex drive has been sheared off.

Drive Gear: The terminal gear of a geared head which is configured either to accept the hex shank of an extended socket or which has a flush hex configuration for transmitting torque to the frangible collar.

Extended Socket: A socket designed to fit into a drive gear at one end and at the opposite end having a recessed hex dimensioned to accept the hex drive of a frangible collar for transmitting torque for tightening onto a mating pin until sheared off.

Extended Socket Accessory Assembly: Adapter assembly which consists of an extended socket and hex tip holder and a hex tip as well as other necessary components required to attach the assembly driver as a complete unit for installation of frangible collars.

Extended Socket Assembly: Adapter assembly consisting of the extended socket and retaining ring supplied as a unit to be used with an extended hex holder assembly on an angle driver.

Frangible (Torque-Off) Collar: A threaded collar in which the hex wrenching portion is sheared off from its body, the collar remaining on the threaded pin after torque-off. Torque control is controlled by the engineering of the collar.



Glossary for QRS[®] Systems

Flush Gear: Terminal drive gear which has a recessed hex on the drive side to engage the hex portion of the collar in a close quarter application not requiring an extended socket.

Flush Tool: Complete assembly driver which is designed for close quarter applications without use of extended socket.

Hex Holder: The assembly component of a socket accessory assembly which is held stationary within the drive gear and through the socket or drive gear. It is used to hold the hex wrench tip stationary during installation.

Hex Holder Assembly: The hex holder and hex wrench tip supplied as an assembly unit for use with a socket or drive gear for installation of frangible collars.

Hex Recess: The hexagon wrench cavity at the threaded end of the pin which accepts the hex wrench tip. The hex recess allows the wrench tip to keep the pin stationary during installation.

Hex Wrench Tip: The wrench which is held stationary by the hex tip holder. This fits into the hex recess of the pin and keeps it stationary during installation.

Interference Fit Hole: A hole prepared in material that is slightly smaller than the shank diameter of the pin. This prevents the pin from spinning during installation and negates the need for hex tips.

Matched Hex Pairs: Dimensions for sockets and hex wrench tips, the larger of which refers to the hex drive dimensions of the collar, and the smaller of which refers to the hex recess dimensions in the threaded end of the pin into which the hex wrench tip is inserted during installation.

Non-Interference Fit Holes: A hole prepared in material with a slightly larger diameter than that of the pin which allows the pin to rotate during installation, therefore needing the use of hex tips during installation.

Non Torque-Control Tool: Installation tool which does not contain a clutch or other torque-control device to control the torque output.

Offset Handle: Grip portion of a pistol type pneumatic motor which extends approximately at a 90 degree angle to the axis of rotation of the motor spindle.

Quick Release System (QRS[™]): Hex tip holder which the hex holder holds the hex tip by means of a retaining shaft which allows for quick and easy replacement of the hex tip. Eliminates the need for external tools to replace the hex tip. Used in non-interference fit holes.

Ratchet Gear: Single drive gear used only on ratchet heads. Same application as drive gear in a geared head tool, except ratchet gears cannot be used in back drive applications.

Retention Shaft: A small shaft which is threaded at one end and retains the hex tip in the holder, and when rotated pulls or pushes the hex tip in or out.

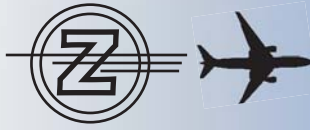
RPM of Tool: The rotation speed of the motor spindle measured at the gear case outlet.

Socket: See extended socket definition.

Torque: Rotation force measured in inch pounds either at the spindle shaft or the drive gear, depending upon the specification.



Quick Change System™ Hi-Lok® Type Fastener Installation Tools



Quick Change System [®]

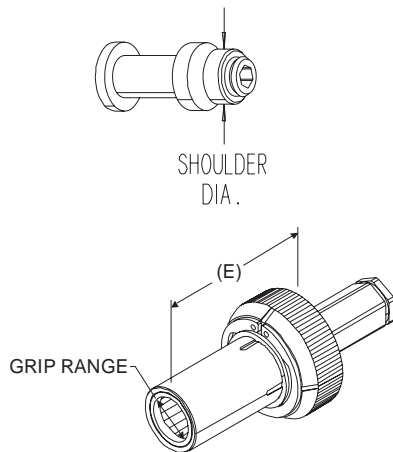


The **Quick Change System** was designed to save time when changing from one size tool to another, or when changing from installation to removal of fasteners. This system was also designed to be used with existing Hi-Lok[®] tooling purchased as complete, ready to use assemblies.

Lok-Fast offers the quick change installation sockets in all the standard hex sizes used with our current Hi-Lok[®] tooling, and removal sockets to remove the full range of fasteners.

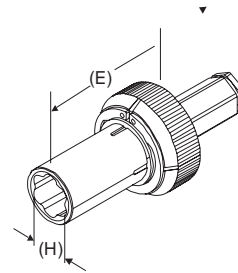
Removal

The illustration below shows the shoulder diameter that dictates the grip range referred to in the following pages



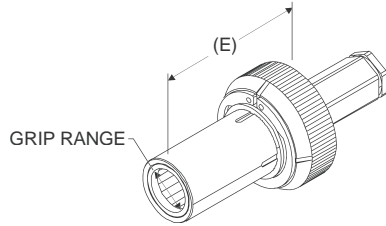
Installation

The illustration below shows the socket hex size referred to in the following pages.





Quick Change Removal Socket



(H) Hex Tip
5 = 1/16
6 = 5/64
8 = 3/32
10 = 1/8

To Order:

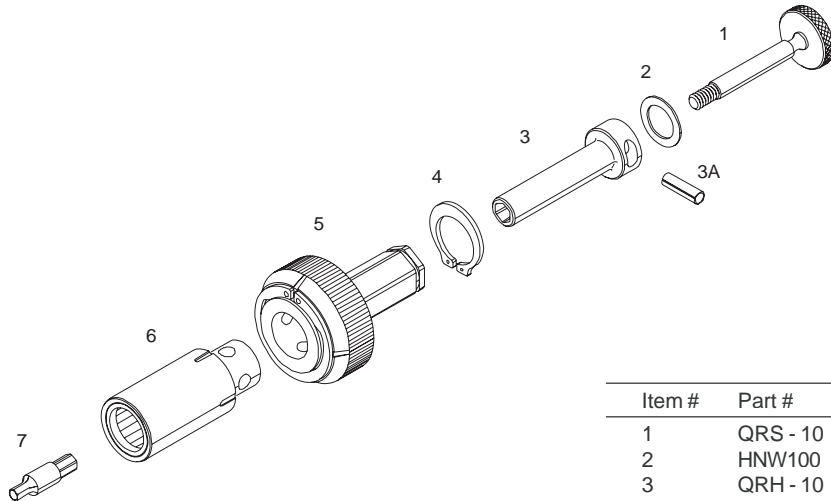
1. Determine the grip size needed.
2. Select the size of the hex tip.

Example: **QCRA235 - 10 - 6**

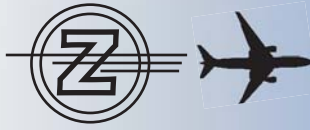
- 1" long socket with grip range 0.235 - 0.245.
- 5/64" hex tip.

Complete Assembly	Removal Socket	Grip Range
QCRA235 - (E) - (H)	QCHR235 - (E)	0.235 - 0.255
QCRA245 - (E) - (H)	QCHR245 - (E)	0.245 - 0.265
QCRA255 - (E) - (H)	QCHR255 - (E)	0.255 - 0.275
QCRA265 - (E) - (H)	QCHR265 - (E)	0.265 - 0.285
QCRA275 - (E) - (H)	QCHR275 - (E)	0.275 - 0.305
QCRA295 - (E) - (H)	QCHR295 - (E)	0.295 - 0.315
QCRA305 - (E) - (H)	QCHR305 - (E)	0.305 - 0.325
QCRA315 - (E) - (H)	QCHR315 - (E)	0.315 - 0.335
QCRA325 - (E) - (H)	QCHR325 - (E)	0.325 - 0.345
QCRA335 - (E) - (H)	QCHR335 - (E)	0.335 - 0.355
QCRA355 - (E) - (H)	QCHR355 - (E)	0.355 - 0.375
QCRA375 - (E) - (H)	QCHR375 - (E)	0.375 - 0.395
QCRA395 - (E) - (H)	QCHR395 - (E)	0.395 - 0.415
QCRA415 - (E) - (H)	QCHR415 - (E)	0.415 - 0.435
QCRA435 - (E) - (H)	QCHR435 - (E)	0.435 - 0.455

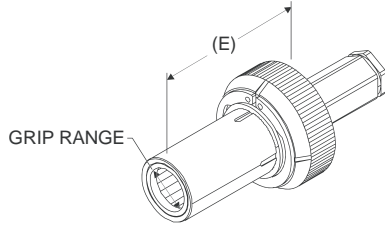
QCRSS23 - 43 Complete Removal Socket Set
Includes Four Hex Tips
Does not Include Holder Accessories



Item #	Part #	Description
1	QRS - 10	Retention Shaft
2	HNW100	Nylon Washer
3	QRH - 10	Holder
3A	ZT663-10	For Hand Tools Only
4	HRC100	Retaining Clip
5	QCR - 281	Quick Change Recepticle
6	QCHR(R) - 10	Quick Change Removal Socket
7	QRK - (H)	Hex Tip



Quick Change Installation Socket



To Order:

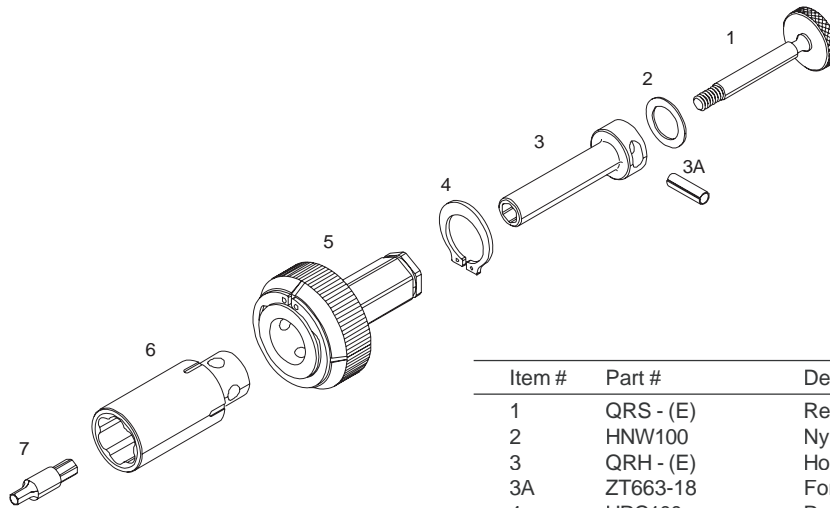
1. Determine the fastener hex and pin recess size.
2. Determine the socket length required.

Example: **QCA250 - 10 - 6**

- 1" long socket with 1/4" socket.
- 5/64" hex tip.

(E)	(H)
Socket Length	Hex Tip
10 = 1.00"	5 = 1/16
15 = 1.50"	6 = 5/64
20 = 2.00"	8 = 3/32
25 = 2.50"	10 = 1/8
30 = 3.00"	

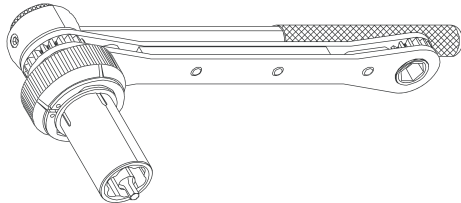
Socket Hex	Complete Assembly	Installation Socket	Holder	Retention Shaft
7/32	QCA218 - (E) - (H)	QCHS218 - (E)		
1/4	QCA250 - (E) - (H)	QCHS250 - (E)		
9/32	QCA281 - (E) - (H)	QCHS281 - (E)		
5/16	QCA312 - (E) - (H)	QCHS312 - (E)	QRH - (E)	QRS - (E)
11/32	QCA343 - (E) - (H)	QCHS343 - (E)		
3/8	QCA375 - (E) - (H)	QCHS375 - (E)		
7/16	QCA437 - (E) - (H)	QCHS437 - (E)		
QCSS23 - 43 - (E)	Complete Installation Socket Set Includes Four Hex Tips Does not Include Holder Accessories			



Item #	Part #	Description
1	QRS - (E)	Retention Shaft
2	HNW100	Nylon Washer
3	QRH - (E)	Holder
3A	ZT663-18	For Hand Tools Only
4	HRC100	Retaining Clip
5	QCR - 281	Quick Change Receptacle
6	QCHS(XXX) - (E)	Quick Change Installation Socket
7	QRK - (H)	Hex Tip



Quick Change Hand Installation Tool



To Order:

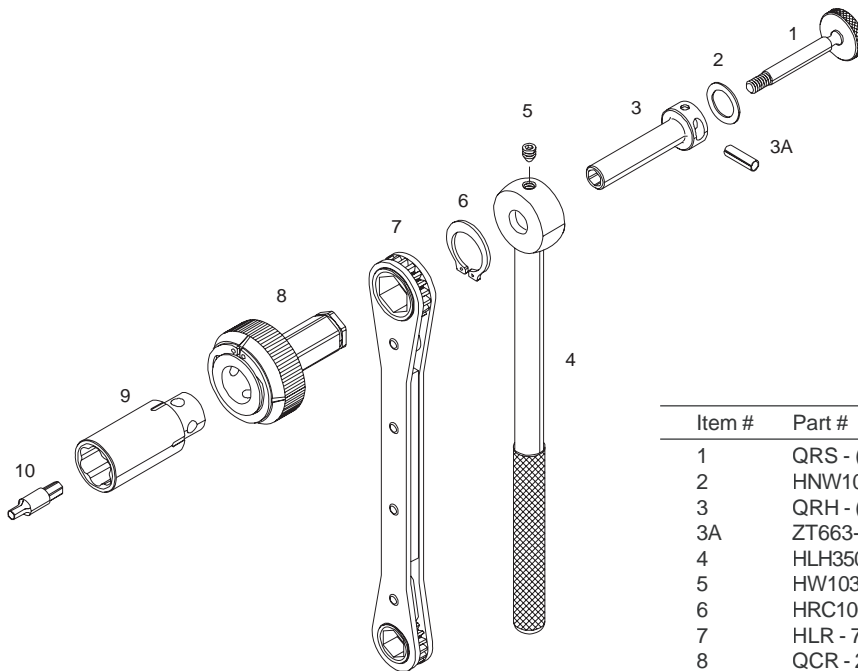
1. Determine the fastener hex and pin recess size.
2. Determine the socket length required.

Example: **QCHA218 - 10 - 6**

- 1" long socket with 7/32" hex.
- 5/64" hex tip.

(E) Socket Length	(H) Hex Tip
10 = 1.00"	- 5 = 1/16
20 = 2.00"	- 6 = 5/64
30 = 3.00"	- 8 = 3/32
	- 10 = 1/8

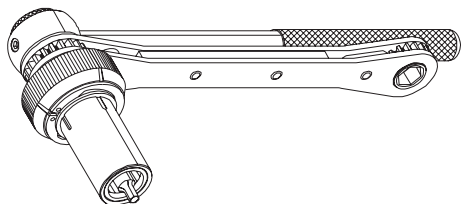
Socket Hex	Complete Tool Assy
7/32	QCHA218 - (E) - (H)
1/4	QCHA250 - (E) - (H)
9/32	QCHA281 - (E) - (H)
5/16	QCHA312 - (E) - (H)
11/32	QCHA343 - (E) - (H)
3/8	QCHA375 - (E) - (H)
7/16	QCHA437 - (E) - (H)



Item #	Part #	Description
1	QRS - (E)	Retention Shaft
2	HNW100	Nylon Washer
3	QRH - (E)	Holder
3A	ZT663-18	For Hand Tools Only
4	HLH350	Handle
5	HW103	Set Screw
6	HRC100	Retaining Clip
7	HLR - 7	Ratchet Wrench
8	QCR - 281	Quick Change Receptacle
9	QCHS(XXX) - (E)	Quick Change Installation Socket
10	QRK - (H)	Hex Tip



Quick Change Hand Removal Tool



(H)
Hex Tip
5 = 1/16
6 = 5/64
8 = 3/32
10 = 1/8

ZEPHYR[®]

TOOL

LOK-FAST

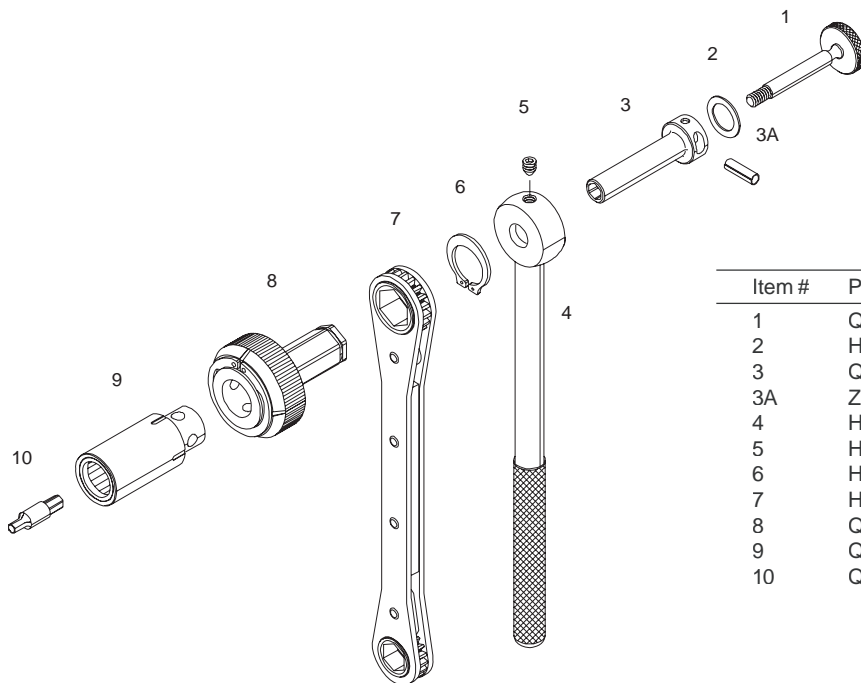
To Order:

1. Determine the fastener hex and pin recess size.
2. Determine the socket length required.

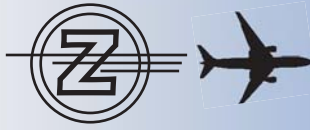
Example: **QCHRA255 - 10 - 8**

- 1" long socket with grip range of 0.235 - 0.255
- 3/32" hex tip.

Complete Assembly	Removal Socket	Grip Range
QCHRA235 - (10) - (H)	QCHR235 - (10)	0.235 - 0.255
QCHRA245 - (10) - (H)	QCHR245 - (10)	0.245 - 0.265
QCHRA255 - (10) - (H)	QCHR255 - (10)	0.255 - 0.275
QCHRA265 - (10) - (H)	QCHR265 - (10)	0.265 - 0.285
QCHRA275 - (10) - (H)	QCHR275 - (10)	0.275 - 0.295
QCHRA285 - (10) - (H)	QCHR285 - (10)	0.285 - 0.305
QCHRA295 - (10) - (H)	QCHR295 - (10)	0.295 - 0.315
QCHRA305 - (10) - (H)	QCHR305 - (10)	0.305 - 0.325
QCHRA315 - (10) - (H)	QCHR315 - (10)	0.315 - 0.335
QCHRA325 - (10) - (H)	QCHR325 - (10)	0.325 - 0.345
QCHRA335 - (10) - (H)	QCHR335 - (10)	0.335 - 0.355
QCHRA355 - (10) - (H)	QCHR355 - (10)	0.355 - 0.375
QCHRA375 - (10) - (H)	QCHR375 - (10)	0.375 - 0.395
QCHRA395 - (10) - (H)	QCHR395 - (10)	0.395 - 0.415
QCHRA415 - (10) - (H)	QCHR415 - (10)	0.415 - 0.435
QCHRA435 - (10) - (H)	QCHR435 - (10)	0.435 - 0.455



Item #	Part #	Description
1	QRS - (E)	Retention Shaft
2	HNW100	Nylon Washer
3	QRH - (E)	Holder
3A	ZT663-18	For Hand Tools Only
4	HLH350	Handle
5	HW103	Set Screw
6	HRC100	Retaining Clip
7	HLR - 7	Ratchet Wrench
8	QCR - 281	Quick Change Receptacle
9	QCHR(R) - (E)	Quick Change Installation Socket
10	QRK - (H)	Hex Tip



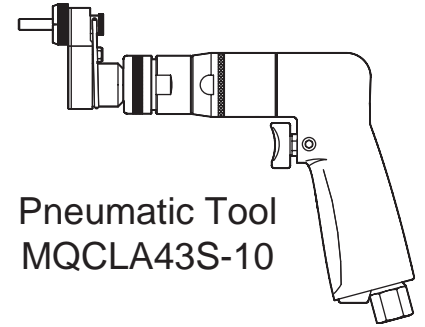
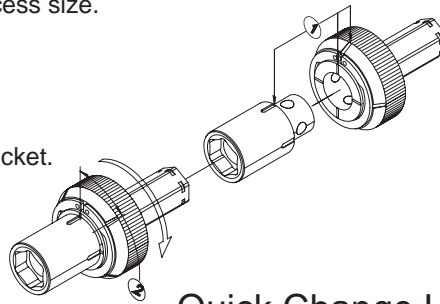
QCK-4000

PNEUMATIC AND HAND TOOL INSTALLATION AND REMOVAL KIT



INSTRUCTIONS

1. Pneumatic and Hand Tool Installation:
 Determine the fastener hex and pin recess size.
2. Pneumatic and Hand tool Removal:
 Determine the grip size needed.
 Select the size of the hex tip.
3. For socket replacement rotate lock ring
 in opposite direction of tool rotation to lock socket.



Pneumatic Tool
 MQCLA43S-10

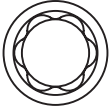
Quick Change Hand Installation Tool

Quick Change Hand Removal Tool

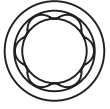
INSTALLATION
 TOOL
 QCHA932

REMOVAL
 TOOL
 QCHRA932

QCHS437-10



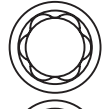
QCHS375-10



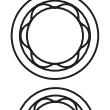
QCHS343-10



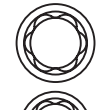
QCHS312-10



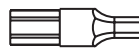
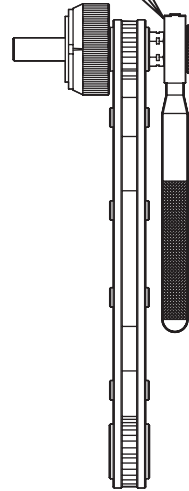
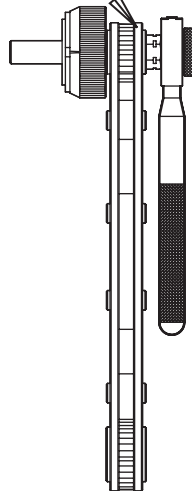
QCHS281-10



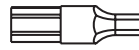
QCHS250-10



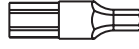
QCHS218-10



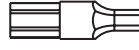
QRK-5 (QTY-2)



QRK-6 (QTY-2)



QRK-8 (QTY-2)



QRK-10 (QTY-2)

QCHR235-10
 RANGE:.235-.255



QCHR245-10
 RANGE:.245-.265



QCHR255-10
 RANGE:.255-.275



QCHR265-10
 RANGE:.265-.285



QCHR275-10
 RANGE:.275-.295



QCHR285-10
 RANGE:.285-.305



QCHR295-10
 RANGE:.295-.315



QCHR305-10
 RANGE:.305-.325



QCHR315-10
 RANGE:.315-.335



QCHR325-10
 RANGE:.325-.345



QCHR335-10
 RANGE:.335-.355



QCHR355-10
 RANGE:.355-.375



QCHR375-10
 RANGE:.375-.395



QCHR395-10
 RANGE:.395-.415





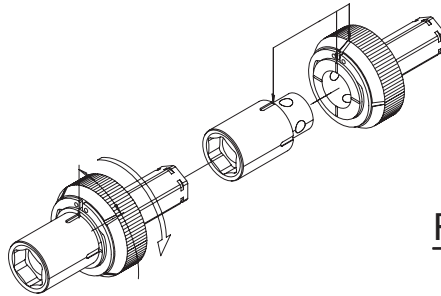
QCK-4010

PNEUMATIC INSTALLATION AND REMOVAL KIT



INSTRUCTIONS

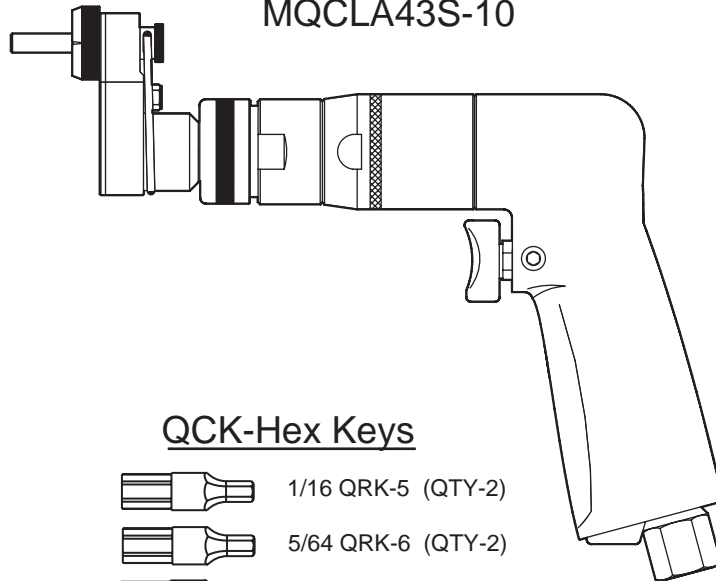
1. Pneumatic Tool Installation:
 Determine the fastener hex and pin recess size.
2. Pneumatic Removal:
 Determine the grip size needed.
 Select the size of the hex tip.
3. For socket replacement rotate lock ring
 in opposite direction of tool rotation to lock socket.



Installation Sockets

QCHS437-10 7/16	
QCHS375-10 3/8	
QCHS343-10 11/32	
QCHS312-10 5/16	
QCHS281-10 9/32	
QCHS250-10 1/4	
QCHS218-10 7/32	

Pneumatic Tool MQCLA43S-10



QCK-Hex Keys

	1/16 QRK-5 (QTY-2)
	5/64 QRK-6 (QTY-2)
	3/32 QRK-8 (QTY-2)
	1/8 QRK-10 (QTY-2)

Removal Sockets

QCHR235-10 RANGE: .235-.255	
QCHR245-10 RANGE: .245-.265	
QCHR255-10 RANGE: .255-.275	
QCHR265-10 RANGE: .265-.285	
QCHR275-10 RANGE: .275-.295	
QCHR285-10 RANGE: .285-.305	
QCHR295-10 RANGE: .295-.315	
QCHR305-10 RANGE: .305-.325	
QCHR315-10 RANGE: .315-.335	
QCHR325-10 RANGE: .325-.345	
QCHR335-10 RANGE: .335-.355	
QCHR355-10 RANGE: .355-.375	
QCHR375-10 RANGE: .375-.395	
QCHR395-10 RANGE: .395-.415	



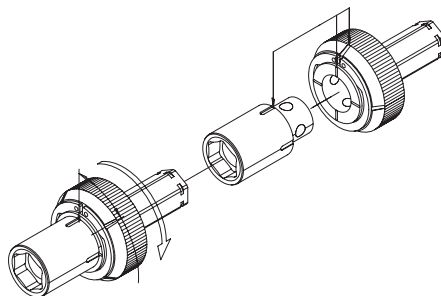
QCK-4030

PNEUMATIC REMOVAL KIT



INSTRUCTIONS

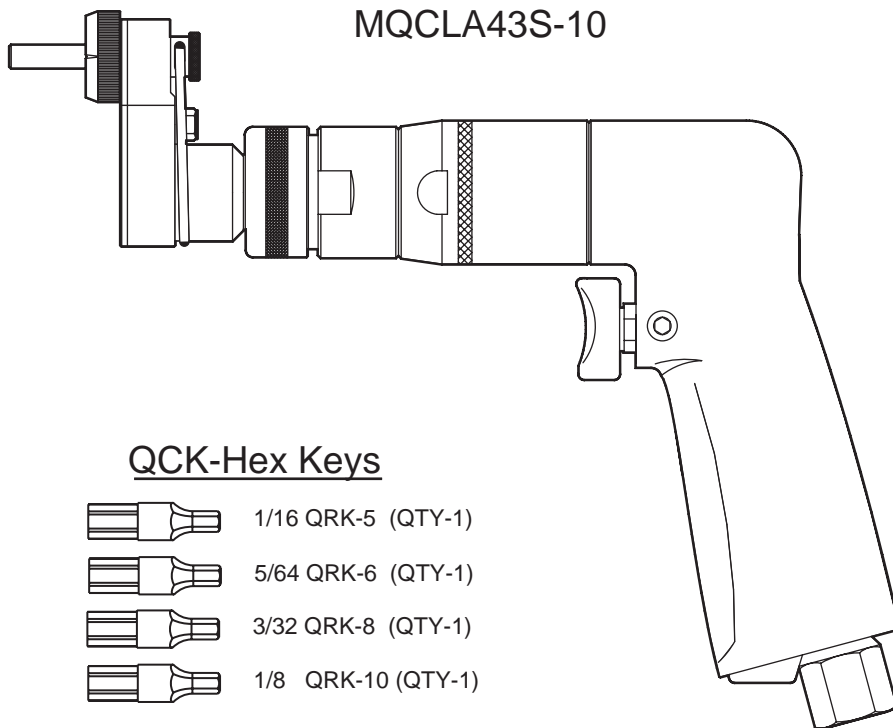
1. Pneumatic Removal:
 Determine the grip size needed.
 Select the size of the hex tip.
2. For socket replacement rotate lock ring
 in opposite direction of tool rotation to lock socket.



Removal Sockets

QCHR235-10 RANGE:.235-.255	
QCHR245-10 RANGE:.245-.265	
QCHR255-10 RANGE:.255-.275	
QCHR265-10 RANGE:.265-.285	
QCHR275-10 RANGE:.275-.295	
QCHR285-10 RANGE:.285-.305	
QCHR295-10 RANGE:.295-.315	
QCHR305-10 RANGE:.305-.325	
QCHR315-10 RANGE:.315-.335	
QCHR325-10 RANGE:.325-.345	
QCHR335-10 RANGE:.335-.355	
QCHR355-10 RANGE:.355-.375	
QCHR375-10 RANGE:.375-.395	
QCHR395-10 RANGE:.395-.415	

Pneumatic Tool
 MQCLA43S-10



QCK-Hex Keys

	1/16 QRK-5 (QTY-1)
	5/64 QRK-6 (QTY-1)
	3/32 QRK-8 (QTY-1)
	1/8 QRK-10 (QTY-1)



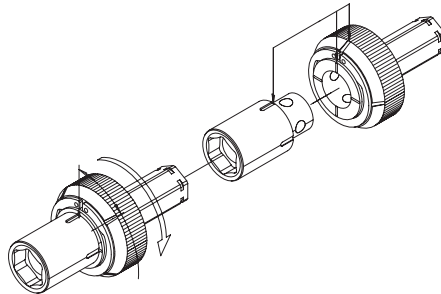
QCK-4030

PNEUMATIC REMOVAL KIT



INSTRUCTIONS

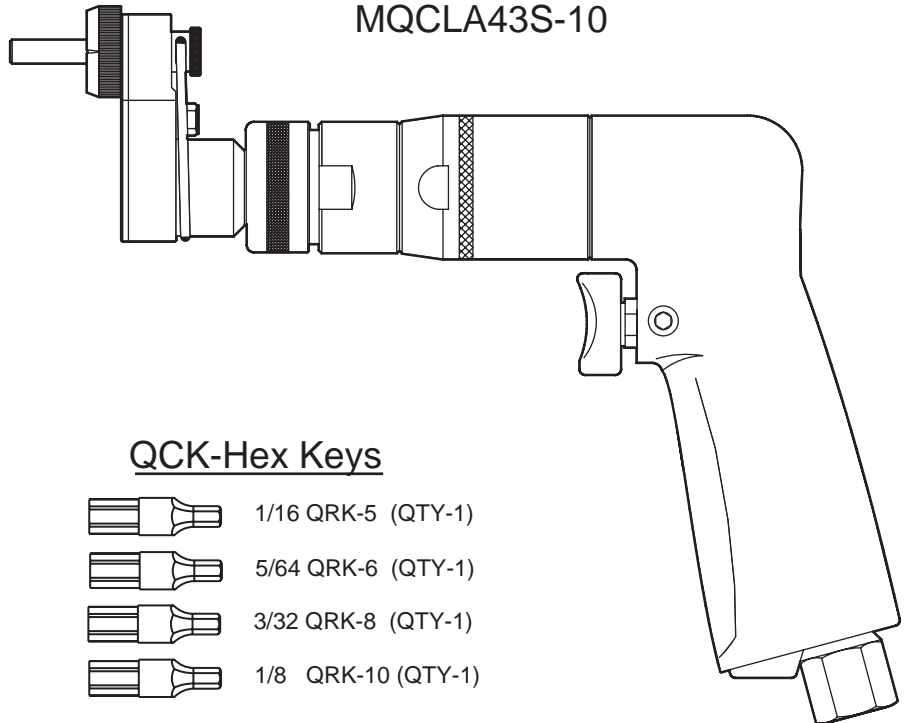
1. Pneumatic Removal:
 Determine the grip size needed.
 Select the size of the hex tip.
2. For socket replacement rotate lock ring
 in opposite direction of tool rotation to lock socket.



Removal Sockets

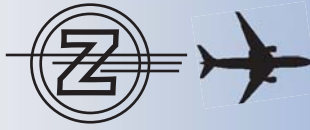
QCHR235-10 RANGE:.235-.255	
QCHR245-10 RANGE:.245-.265	
QCHR255-10 RANGE:.255-.275	
QCHR265-10 RANGE:.265-.285	
QCHR275-10 RANGE:.275-.295	
QCHR285-10 RANGE:.285-.305	
QCHR295-10 RANGE:.295-.315	
QCHR305-10 RANGE:.305-.325	
QCHR315-10 RANGE:.315-.335	
QCHR325-10 RANGE:.325-.345	
QCHR335-10 RANGE:.335-.355	
QCHR355-10 RANGE:.355-.375	
QCHR375-10 RANGE:.375-.395	
QCHR395-10 RANGE:.395-.415	

Pneumatic Tool
 MQCLA43S-10



QCK-Hex Keys

	1/16 QRK-5 (QTY-1)
	5/64 QRK-6 (QTY-1)
	3/32 QRK-8 (QTY-1)
	1/8 QRK-10 (QTY-1)



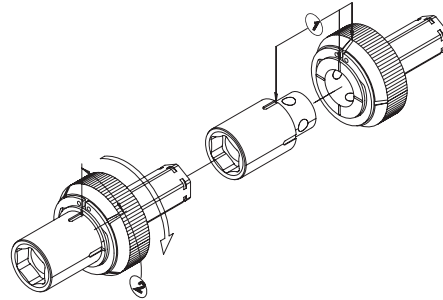
QCK-4040

HAND TOOL INSTALLATION AND REMOVAL KIT

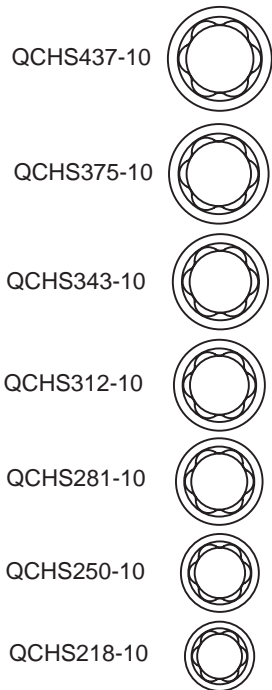


INSTRUCTIONS

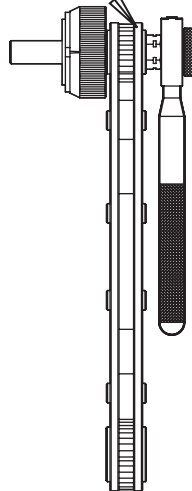
1. Hand Tool Installation:
 Determine the fastener hex and pin recess size.
2. Hand tool Removal:
 Determine the grip size needed.
 Select the size of the hex tip.
3. For socket replacement rotate lock ring
 in opposite direction of tool rotation to lock socket.



Quick Change Hand Installation Tool

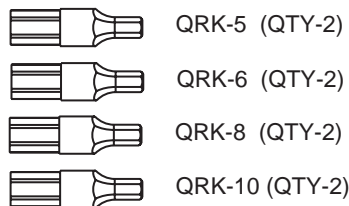
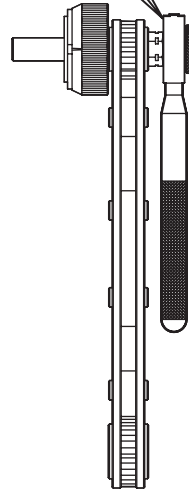


INSTALLATION
 TOOL
 QCHA932



Quick Change Hand Removal Tool

REMOVAL
 TOOL
 QCHRA932



QCHR235-10
 RANGE: .235-.255

QCHR245-10
 RANGE: .245-.265

QCHR255-10
 RANGE: .255-.275

QCHR265-10
 RANGE: .265-.285

QCHR275-10
 RANGE: .275-.295

QCHR285-10
 RANGE: .285-.305

QCHR295-10
 RANGE: .295-.315

QCHR305-10
 RANGE: .305-.325

QCHR315-10
 RANGE: .315-.335

QCHR325-10
 RANGE: .325-.345

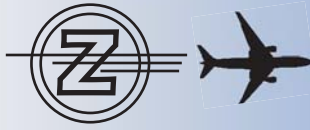
QCHR335-10
 RANGE: .335-.355

QCHR355-10
 RANGE: .355-.375

QCHR375-10
 RANGE: .375-.395

QCHR395-10
 RANGE: .395-.415





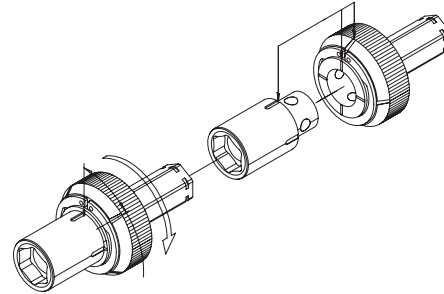
QCK-4050

HAND INSTALLATION KIT



INSTRUCTIONS

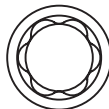
1. Hand Tool Installation:
 Determine the fastener hex and pin recess size.
2. For socket replacement rotate lock ring
 in opposite direction of tool rotation to lock socket.



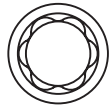
Quick Change Hand Installation Tool

Installation Sockets

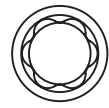
QCHS437-10
 7/16



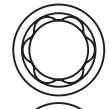
QCHS375-10
 3/8



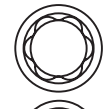
QCHS343-10
 11/32



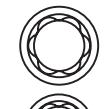
QCHS312-10
 5/16



QCHS281-10
 9/32



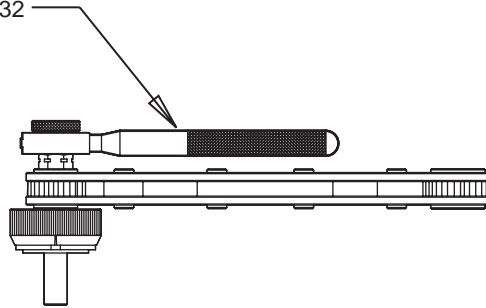
QCHS250-10
 1/4



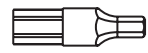
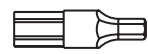
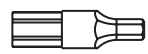
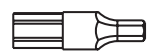
QCHS218-10
 7/32

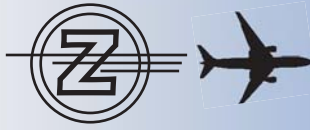


INSTALLATION
 TOOL
 QCHA932



QCK-Hex Keys

-  1/16 QRK-5 (QTY-1)
-  5/64 QRK-6 (QTY-1)
-  3/32 QRK-8 (QTY-1)
-  1/8 QRK-10 (QTY-1)



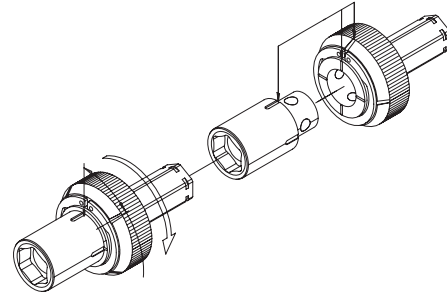
QCK-4060

HAND REMOVAL KIT



INSTRUCTIONS

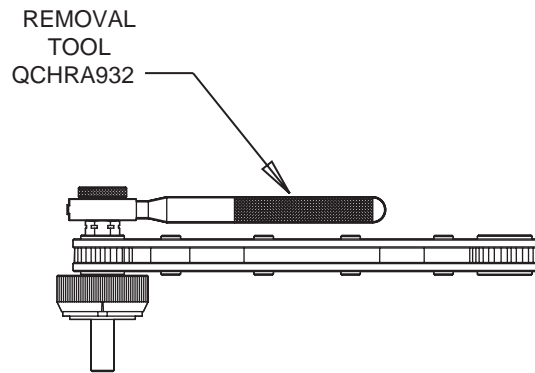
1. Hand tool Removal:
 - Determine the grip size needed.
 - Select the size of the hex tip.
2. For socket replacement rotate lock ring in opposite direction of tool rotation to lock socket.



Removal Sockets

QCHR235-10 RANGE:.235-.255	
QCHR245-10 RANGE:.245-.265	
QCHR255-10 RANGE:.255-.275	
QCHR265-10 RANGE:.265-.285	
QCHR275-10 RANGE:.275-.295	
QCHR285-10 RANGE:.285-.305	
QCHR295-10 RANGE:.295-.315	
QCHR305-10 RANGE:.305-.325	
QCHR315-10 RANGE:.315-.335	
QCHR325-10 RANGE:.325-.345	
QCHR335-10 RANGE:.335-.355	
QCHR355-10 RANGE:.355-.375	
QCHR375-10 RANGE:.375-.395	
QCHR395-10 RANGE:.395-.415	

Quick Change Hand Removal Tool



QCK-Hex Keys

	1/16 QRK-5 (QTY-1)
	5/64 QRK-6 (QTY-1)
	3/32 QRK-8 (QTY-1)
	1/8 QRK-10 (QTY-1)



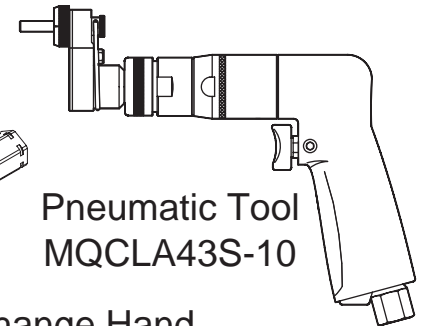
QCK-4070

PNEUMATIC AND HAND TOOL
 INSTALLATION AND REMOVAL KIT



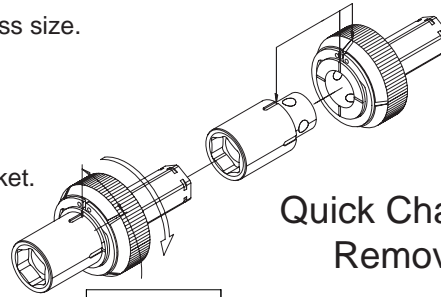
INSTRUCTIONS

1. Pneumatic and Hand Tool Installation:
 Determine the fastener hex and pin recess size.
2. Pneumatic and Hand tool Removal:
 Determine the grip size needed.
 Select the size of the hex tip.
3. For socket replacement rotate lock ring
 in opposite direction of tool rotation to lock socket.

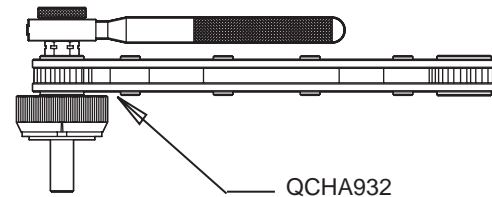
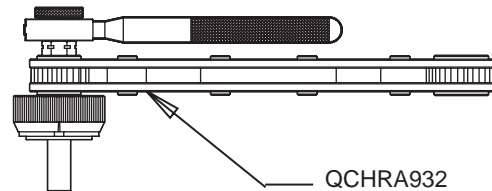
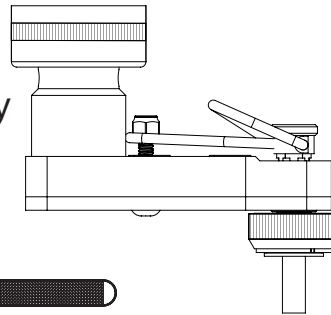


Quick Change Hand Installation Tool

Quick Change Hand Removal Tool



4 Gears "L" Head Assy MLH4-932-S



QCK-Hex Keys

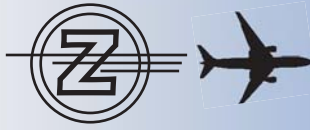
- 1/16 QRK-5 (QTY-2)
- 5/64 QRK-6 (QTY-2)
- 3/32 QRK-8 (QTY-2)
- 1/8 QRK-10 (QTY-2)

Removal Sockets

- QCHR235-10 RANGE: .235-.255
- QCHR245-10 RANGE: .245-.265
- QCHR255-10 RANGE: .255-.275
- QCHR265-10 RANGE: .265-.285
- QCHR275-10 RANGE: .275-.295
- QCHR285-10 RANGE: .285-.305
- QCHR295-10 RANGE: .295-.315
- QCHR305-10 RANGE: .305-.325
- QCHR315-10 RANGE: .315-.335
- QCHR325-10 RANGE: .325-.345
- QCHR335-10 RANGE: .335-.355
- QCHR355-10 RANGE: .355-.375
- QCHR375-10 RANGE: .375-.395
- QCHR395-10 RANGE: .395-.415

Installation Sockets

- QCHS437-10 7/16
- QCHS375-10 3/8
- QCHS343-10 11/32
- QCHS312-10 5/16
- QCHS281-10 9/32
- QCHS250-10 1/4
- QCHS218-10 7/32



QCRSS23-43















COMPLET REMOVAL SOCKET SET







INSTRUCTIONS

1. Pneumatic and Hand tool Removal:
 Determine the grip size needed.
 Select the size of the hex tip.

Removal Sockets

QCHR235-10 RANGE: .235-.255		QCHR305-10 RANGE: .305-.325	
QCHR245-10 RANGE: .245-.265		QCHR315-10 RANGE: .315-.335	
QCHR255-10 RANGE: .255-.275		QCHR325-10 RANGE: .325-.345	
QCHR265-10 RANGE: .265-.285		QCHR335-10 RANGE: .335-.355	
QCHR275-10 RANGE: .275-.295		QCHR355-10 RANGE: .355-.375	
QCHR285-10 RANGE: .285-.305		QCHR375-10 RANGE: .375-.395	
QCHR295-10 RANGE: .295-.315		QCHR395-10 RANGE: .395-.415	

QCK-Hex Keys

	1/16 QRK-5 (QTY-1)
	5/64 QRK-6 (QTY-1)
	3/32 QRK-8 (QTY-1)
	1/8 QRK-10 (QTY-1)



QCSS22-43

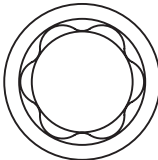
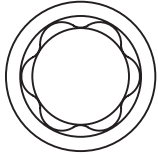
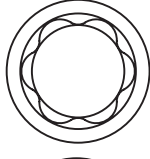
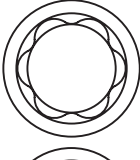
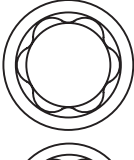
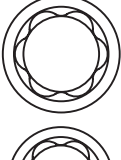

COMPLETE INSTALLATION SOCKET SET



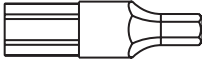

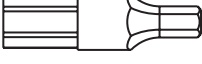

INSTRUCTIONS

1. Pneumatic and Hand tool Installation:
 Determine the hex size needed.
 Select the size of the hex tip.

Installation Sockets

QCHS437-10 7/16	
QCHS375-10 3/8	
QCHS343-10 11/32	
QCHS312-10 5/16	
QCHS281-10 9/32	
QCHS250-10 1/4	
QCHS218-10 7/32	

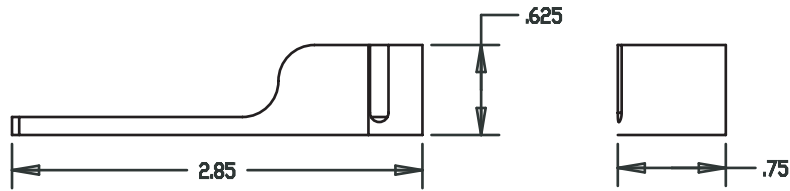
QCK-Hex Keys

	1/16 QRK-5 (QTY-1)
	5/64 QRK-6 (QTY-1)
	3/32 QRK-8 (QTY-1)
	1/8 QRK-10 (QTY-1)

8015-H
Ratchet Reaction Bracket



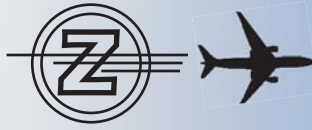
NEW



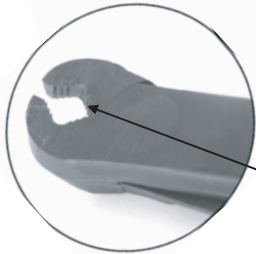
HI-LOK RATCHET SPRING SAVER REACTION BRACKET

With the use of today's modern composite materials, the aircraft industry faces new problems with the installation of frangible-collar type fasteners. These fasteners have, historically, had the benefit of interference fit holes. The loss of this benefit has created new challenges for installation tooling, resulting in excess hex key breakage, and coiling of hex key tension springs. Zephyr's new reaction bracket is designed to fit Zephyr series QSRA straight ratchet and series QRA 20° offset ratchet installation tools. Broken hex keys are easily replaced using Zephyr's QSA® (Quick-Release System). The entire system eliminates costly down time and removes the need to return the tool to the tool crib to replace a broken hex key or coiled spring.

Order Part Number: 8015-H



ZHP-100 HI-LOK[®] PLIERS



The notched jaws are designed for maximum gripping from the top or bottom of the offset pliers head.

ZEPHYR Hi-Lok[®] Removal Pliers offer a quick and inexpensive alternative for removing any frangible hex collar such as Hi-Lok, Hi-Lite, Hi-Tigue, Veri-Lite and C-Lok fasteners. The hardened steel jaws are specially designed to maximize the gripping surface around the collar. This allows the ZHP-100 pliers to grip 5/32", 3/16", 1/4" and 5/16" fastener sizes.

For non-interference fit holes, the ZHP-100 removal pliers should be used in conjunction with a hex key such as ZEPHYR's ZRWK series plastic or T-handle hex wrench's.

QRS[®] Ratchet Wrench Assembly QHRA



To Order:

1. Determine the socket hex and the socket length.
2. Determine the size of the hex tip.

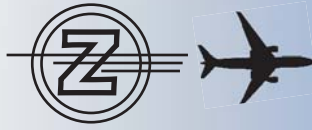
Example: **QHRA-22-10-5**

- 7/32" socket
- 1.0" extended socket with QRS[®] system
- QRK-5 Hex Tip

(E) Socket Length
4 = 0.25"
5 = 0.50"
10 = 1.00"
15 = 1.50"
20 = 2.00"
30 = 3.00"

Hex Tip	Socket Hex	Complete Part Number
	7/32	QHRA-22-(E)-5
1/16	1/4	QHRA-25-(E)-5
QRK-5	9/32	QHRA-28-(E)-5
	5/16	QHRA-31-(E)-5
	11/32	QHRA-34-(E)-5
	7/32	QHRA-22-(E)-6
QRK-6	5/64	QHRA-25-(E)-6
	1/4	QHRA-28-(E)-6
	9/32	QHRA-31-(E)-6
	5/16	QHRA-34-(E)-6
QRK-8	11/32	QHRA-37-(E)-6
	3/8	QHRA-40-(E)-6
	5/16	QHRA-31-(E)-8
	3/32	11/32
QRK-8	3/8	QHRA-37-(E)-8
	7/16	QHRA-43-(E)-8

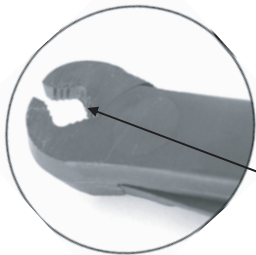
The QRS[®] Quick Release System is a quick and easy way to replace the QRK hex tip. QRS[®] eliminates the need for any external tools to replace a hex tip.



ZHP-200
HI-LOK[®] PLIERS



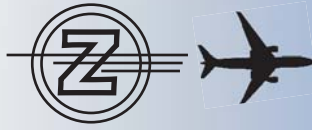
NEW



The notched jaws are designed for maximum gripping from the top or bottom of the offset pliers head.

ZEPHYR's New "Big" Hi-Lok Removal Plier (9" OAL) like its very popular predecessor the ZHP-100 Standard Hi-Lok Plier, offers a quick and inexpensive alternative for removing larger size frangible hex collars such as Hi-Lok, Hi-Lite, Hi-Tigue, Veri-Lite and C-Lok fasteners. The hardened steel jaws are specially designed to maximize the gripping surface around the collar. The new Big Grip ZHP-200 plier is designed to work with 5/16", 5/8" and 3/4" fastener sizes.

Also shown, ZHP-100 (7 3/8 OAL) hot forged Hi-Lok collar removal pliers for sizes 5/32", 3/16", 1/4" and 5/16".



ZRDA80 Roller Drive Wrench Assembly



ZRDA80-31



ZRDA80S-31



Zephyr's Roller Drive Wrench Assemblies are ideal for the installation of any frangible hex collar fastener system such as Hi-Lok®, Hi-Lite®, Hi-Tigue®, Veri-Lite® and C-Lok® and the removal of any hex nut or hex collar in the most difficult close quarter applications.

Features

- One piece hot forged handle construction for maximum strength.
- Bright yellow knurled handle for easy visibility reducing chance of FOD.
- Minimum edge and height clearance plus a minimum handle swing angle allows easy access to those most restricted close quarters applications.
- The 1/4" square drive spindle and all ZRDS sockets feature a through hole for those applications that require the use of a hex keys.
- The ZRDW roller drive wrench also accepts all standard 1/4" square drive sockets.

All the components listed below are completely interchangeable and can be ordered separately or as an assembly.

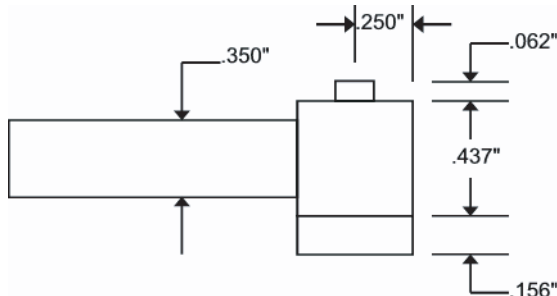
How to select a tool: To order a complete assembly select the roller drive wrench 6.0" or 3.0" length from the parts list to the right. Then select the appropriate ZRDS socket hex that match the collar or nut hex. Example:

ZRDA80-31 Includes:

- ZRDW80 Roller Drive Wrench 6.0" OAL
- ZRDS-31 5/16" Drive Hex Socket

To order the Roller Drive Wrench equipped with a 1/4" square drive the part numbers are:

- ZRDW80S-250 3.0" Handle
- ZRDW80-250 6.0" Handle



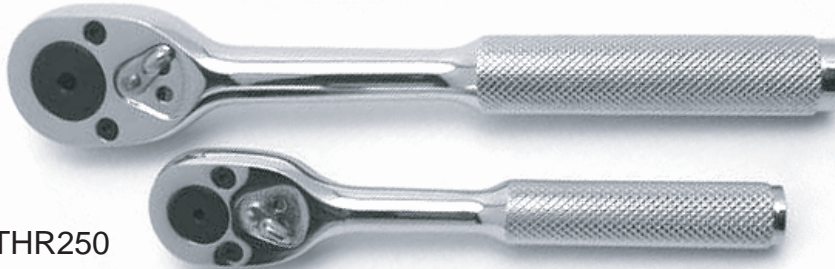
Socket Hex Size	Complete Tool Part Number	Roller Drive Wrench Part Number	Socket Part Number	
3/16	ZRDA80-18S	ZRDW80S 80 in lbs 3" OAL	ZRDS-18	
7/32	ZRDA80-22S		ZRDS-22	
1/4	ZRDA80-25S		ZRDS-25	
9/32	ZRDA80-28S		ZRDS-28	
5/16	ZRDA80-31S		ZRDS-31	
11/32	ZRDA80-34S		ZRDS-34	
3/8	ZRDA80-37S		ZRDS-37	
7/16	ZRDA80-43S		ZRDS-43	
3/16	ZRDA80-18		ZRDW80 80 in lbs 6" OAL	ZRDS-18
7/32	ZRDA80-22			ZRDS-22
1/4	ZRDA80-25	ZRDS-25		
9/32	ZRDA80-28	ZRDS-28		
5/16	ZRDA80-31	ZRDS-31		
11/32	ZRDA80-34	ZRDS-34		
3/8	ZRDA80-37	ZRDS-37		
7/16	ZRDA80-43	ZRDS-43		

Caution: Maximum torque rating is 100 in lbs.

For higher torque requirements use our ZATHR250, 1/4" square drive ratchet wrench with a maximum torque rating of 500 in lbs.



ZRWA Reversible Ratchet Wrench Assembly



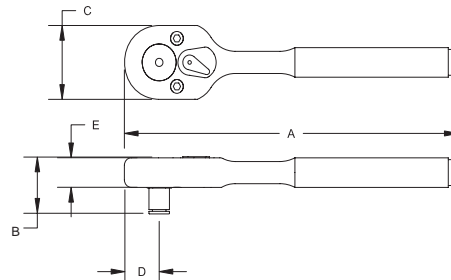
ZATHR250

ZATHR375

Zephyr's Ratchet Wrench Assemblies are ideal for the installation of any frangible hex collar fastener system such as Hi-Lok, Hi-Lite, Hi-Tigue, Veri-Lite and C-Lok. The ZATHR series ratchet has 72 teeth offering minimum handle swing for close quarter applications. The assembly consists of a 1/4" or 3/8" square drive reversible ratchet wrench with a through hole, a socket with a set screw and hex key with either a plastic screwdriver handle or a "T" handle. All the components listed below are completely interchangeable and can be ordered as an assembly or separately.

How to select a tool: From the parts list below determine the ratchet wrench 1/4" or 3/8" square drive, then select the appropriate socket hex and the hex key sizes that match the fastener pin and collar. Example:

- ZRWA25-37-6 Includes:
 ZATHR250 1/4" SQ Drive Ratchet Wrench
 ZRWS25-37 3/8" Drive Hex Socket
 ZRWK-6 5/64" Hex Key with Handle



Socket Hex Size	Hex Key Size	Complete Tool Part Number	Ratchet Wrench Part Number	Socket Part Number	Hex Key Part Number						Handle Swing						
						A	B	C	D	E							
3/16	1/16"	ZRWA25-18-5	ZATHR250 1/4" SQ Drive	ZRWS25-18	ZRWK-5P	5 11/32"	13/16"	1 1/16"	17/32"	7/16"	4 Degrees						
7/32		ZRWA25-22-5		ZRWS25-22													
1/4		ZRWA25-25-5		ZRWS25-25													
9/32		ZRWA25-28-5		ZRWS25-28													
5/16		ZRWA25-31-5		ZRWS25-31													
11/32	ZRWA25-34-5	ZRWS25-34	ZRWK-6P	7 27/32"	1 1/8"	1 13/32"	23/32"	1/2"	5 Degrees								
7/32	ZRWA25-22-6	ZRWS25-22															
1/4	ZRWA25-25-6	ZRWS25-25															
9/32	ZRWA25-28-6	ZRWS25-28															
5/16	ZRWA25-31-6	ZRWS25-31															
11/32	ZRWA25-34-6	ZRWS25-34	ZRWK-8P	5 11/32"	13/16"	1 1/16"	17/32"	7/16"	4 Degrees								
3/8	ZRWA25-37-6	ZRWS25-37															
3/8	ZRWA37-37-6	ZATHR375								ZRWS37-37							
5/16	ZRWA25-31-8	ZATHR250 1/4" SQ Drive								ZRWS25-31	ZRWK-8T	7 27/32"	1 1/8"	1 13/32"	23/32"	1/2"	5 Degrees
11/32	ZRWA25-34-8									ZRWS25-34							
3/8	ZRWA25-37-8		ZRWS25-37														
3/8	ZRWA37-37-8		ZRWS37-37														
7/16	ZRWA37-43-8		ZRWS37-43														
1/2	ZRWA37-50-8	ZRWS37-50	ZRWK-10T	5 11/32"	13/16"	1 1/16"	17/32"	7/16"	4 Degrees								
3/8	ZRWA37-37-10	ZATHR375 3/8" SQ Drive								ZRWS37-37							
7/16	ZRWA37-43-10	ZRWS37-43															
1/2	ZRWA37-50-10	ZRWS37-50															
7/16	ZRWA37-43-12	ZRWS37-43								ZRWK-12T	7 27/32"	1 1/8"	1 13/32"	23/32"	1/2"	5 Degrees	
1/2	ZRWA37-50-12	ZRWS37-50															

ZATHR250 maximum torque rating is 500 in lbs.



AEROSPACE FASTENER TOOLS

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201 Hindry Avenue - Inglewood, CA 90301-1519- (310) 410-2913-www.zephyrtool.com- email: sales@zephyrtool.com

06/2013

The image features three precision-machined metal tools, likely used for aerospace fasteners, arranged diagonally against a dark blue background. The tools are highly detailed, showing various threads, grooves, and mechanical features. The top tool is a long, cylindrical assembly with a complex internal structure. The middle tool is a shorter, more compact cylindrical piece. The bottom tool is a long, slender shaft with several hexagonal sections and a threaded end. The lighting highlights the metallic surfaces and the precision of the manufacturing.

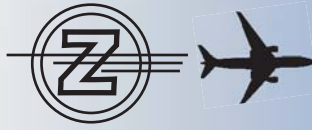
ZEPHYR[®]

T O O L

LOK-FAST

AEROSPACE FASTENER TOOLS

BLIND FASTENER TOOLS



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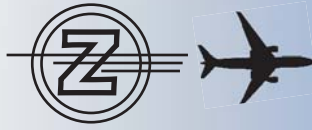
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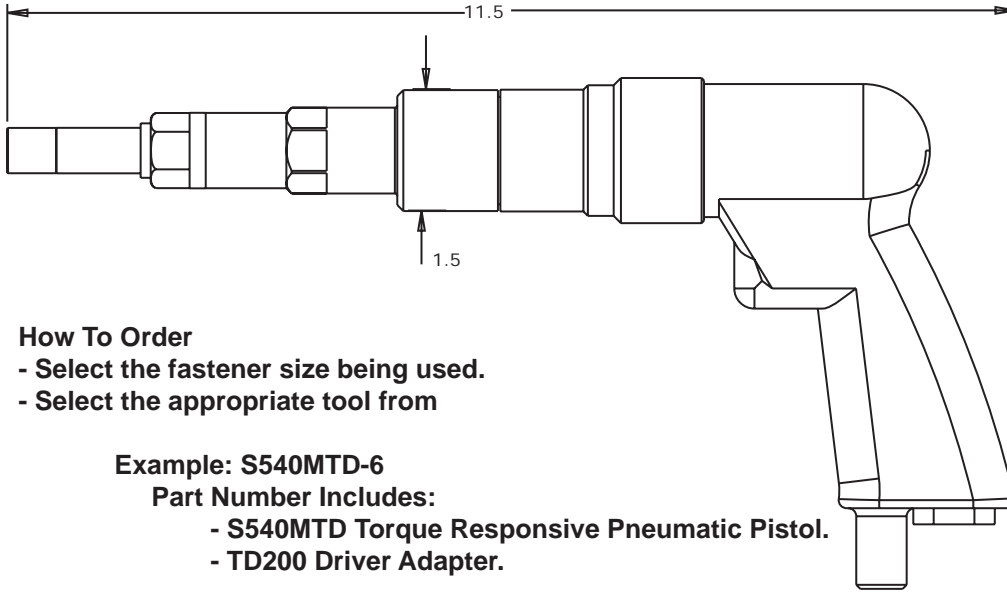


Visu-Lok

Blind Fastener Tools



Master Torque Driver



How To Order

- Select the fastener size being used.
- Select the appropriate tool from

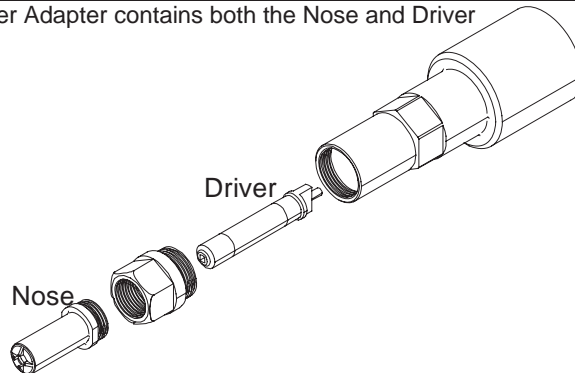
Example: S540MTD-6

Part Number Includes:

- S540MTD Torque Responsive Pneumatic Pistol.
- TD200 Driver Adapter.

Pin Dia	Visu-Lok Series	Pneumatic Pistol	Driver Adapter	Nose	Driver
5/32"	flush - 5	S540MTD-5	TD165	PW3652	TD1651
3/16"	flush - 6	S540MTD-6	TD200	PW3002	TD2001
1/4"	flush - 8	S540MTD-8	TD260	PW3602	TD2601
5/16"	flush - 10	S540MTD-10	TD312	PW3122	TD3121
3/8"	flush - 12	S540MTD-12	PT375	PT3752	PT3751
5/32"	protruding - 5	S540MTD-5P	TD165P	PW3652P	TD1651
3/16"	protruding - 6	S540MTD-6P	TD200P	PW3002P	TD2001
1/4"	protruding - 8	S540MTD-8P	TD260P	PW3602P	TD2601
5/16"	protruding - 10	S540MTD-10P	TD312P	PW3122P	TD3121
3/8"	protruding - 12	S540MTD-12P	PT375P	PW3752P	PT3751
5/32"	millable - 5	S540MTD-5A	TD165A	PW3652A	TD1651
3/16"	millable - 6	S540MTD-6A	TD200A	PW3002A	TD2001
1/4"	millable - 8	S540MTD-8A	TD260A	PW3602A	TD2601
5/32"	reduced flush - 5	S540MTD-5T	TD165T	PW3652T	TD1651
3/16"	reduced flush - 6	S540MTD-6T	TD200T	PW3002T	TD2001
1/4"	reduced flush - 8	S540MTD-8T	TD260T	PW3602T	TD2601
5/16"	reduced flush - 10	S540MTD-10T	TD312T	PW3122T	TD3121
3/8"	reduced flush - 12	S540MTD-12T	PT375T	PT3752T	PT3751

* Driver Adapter contains both the Nose and Driver

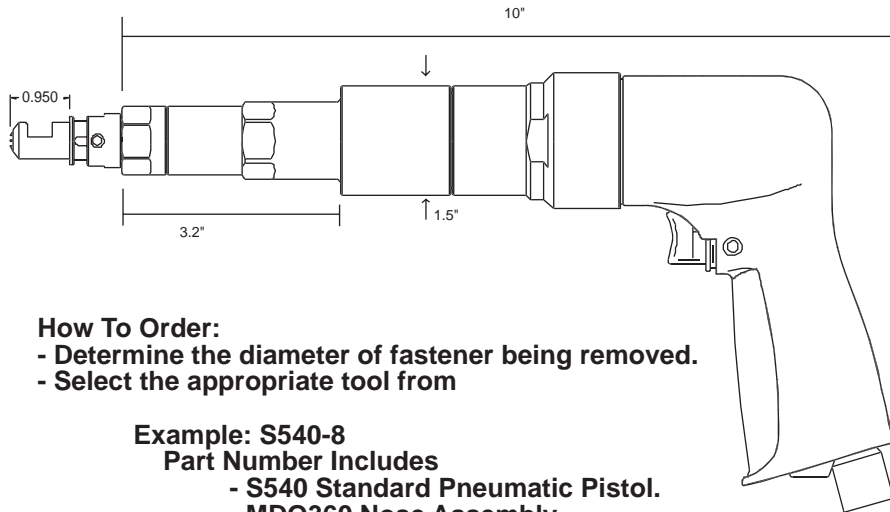


Technical Data

Operating Pressure	90 PSI
Torque Output	220 in-lbs
Motor Speed	540 rpm
Air Consumption (at free speed)	30 cfm
Horse Power Rating	0.5
Weight	3.5lb



Pneumatic Drill-Out



How To Order:

- Determine the diameter of fastener being removed.
- Select the appropriate tool from

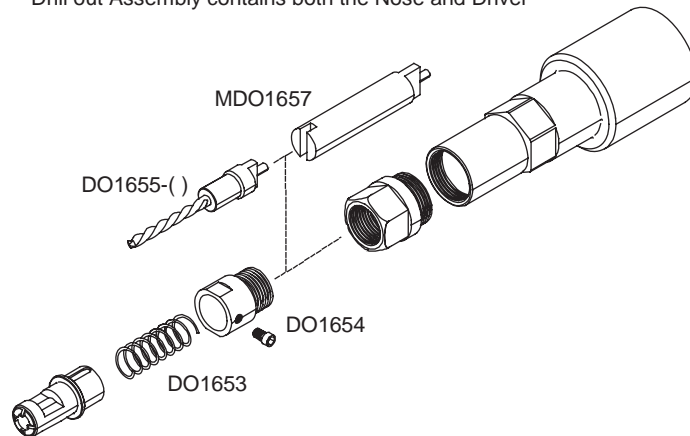
Example: S540-8

Part Number Includes

- S540 Standard Pneumatic Pistol.
- MDO360 Nose Assembly.

Dia	Visu-Lok Series	Complete Assy	Drill-Out Assy	Nose	Drill
5/32"	flush - 5	S540-5	MDO365	DO1652	DO1655-5
3/16"	flush - 6	S540-6	MDO300	DO2002	DO1655-6
1/4"	flush - 8	S540-8	MDO360	DO2602	DO1655-8
5/16"	flush - 10	S540-10	MDO312	DO3122	DO1655-10
3/8"	flush - 12	S540-12	MDO375	DO3752	DO1655-12
5/32"	protruding - 5	S540-5P	MDO365P	DO1652P	DO1655-5
3/16"	protruding - 6	S540-6P	MDO300P	DO2002P	DO1655-6
1/4"	protruding - 8	S540-8P	MDO360P	DO2602P	DO1655-8
5/16"	protruding - 10	S540-10P	MDO312P	DO3122P	DO1655-10
3/8"	protruding - 12	S540-12P	MDO375P	DO3752P	DO1655-12
5/32"	millable - 5	S540-5A	MDO365A	DO1652A	DO1655-5
3/16"	millable - 6	S540-6A	MDO300A	DO2002A	DO1655-6
1/4"	millable - 8	S540-8A	MDO360A	DO2602A	DO1655-8
5/32"	reduced flush - 5	S540-5T	MDO365T	DO1652T	DO1655-5
3/16"	reduced flush - 6	S540-6T	MDO300T	DO2002T	DO1655-6
1/4"	reduced flush - 8	S540-8T	MDO360T	DO2602T	DO1655-8
5/16"	reduced flush - 10	S540-10T	MDO312T	DO3122T	DO1655-10
3/8"	reduced flush - 12	S540-12T	MDO375T	DO3752T	DO1655-12

*Drill out Assembly contains both the Nose and Driver



Technical Data

Operating Pressure	90 PSI
Torque Output	220 in-lbs
Motor Speed	540 rpm
Air Consumption	30 cfm
(at free speed)	
Horse Power Rating	0.5
Weight	3.5lb



Torque Responsive Adapter



How To Order

- Select the fastener size being used.
- Select the appropriate tool from Table below

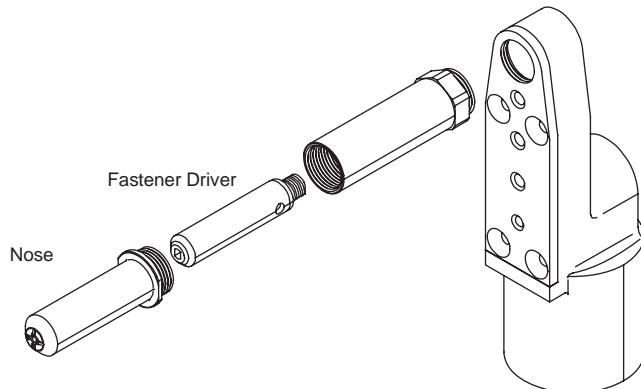
Example: 7440M-6

Part Number Includes

- 7440M Pneumatic Right Angle Motor.
- PT400 Driver Assembly.

Dia.	Visu-Lok Series	Pneumatic Assembly	Driver Assy	Nose	Driver
5/32"	flush - 5	7440M-5	PT465	PT4652	PT4651
3/16"	flush - 6	7440M-6	PT400	PT4002	PT4001
1/4"	flush - 8	7440M-8	PT460	PT4602	PT4601
5/32"	protruding - 5	7440M-5P	PT465P	PT4652P	PT4651
3/16"	protruding - 6	7440M-6P	PT400P	PT4002P	PT4001
1/4"	protruding - 8	7440M-8P	PT460P	PT4602P	PT4601
5/32"	millable - 5	7440M-5A	PT465A	PT4652A	PT4651
3/16"	millable - 6	7440M-6A	PT400A	PT4002A	PT4001
1/4"	millable - 8	7440M-8A	PT460A	PT4602A	PT4601
5/32"	reduced flush - 5	7440M-5T	PT465T	PT4652T	PT4651
3/16"	reduced flush - 6	7440M-6T	PT400T	PT4002T	PT4001
1/4"	reduced flush - 8	7440M-8T	PT460T	PT4602T	PT4601

*Driver Assembly contains both the Nose and Driver

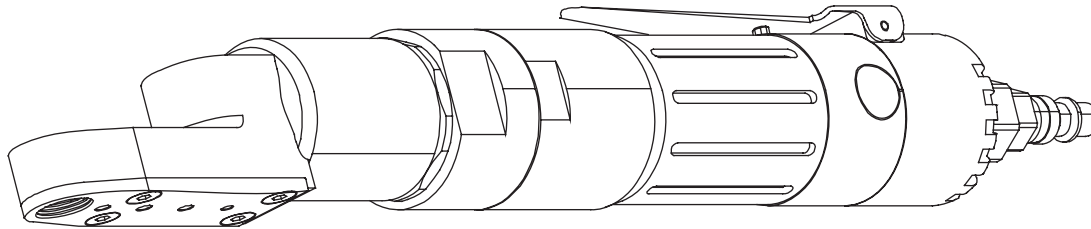


Technical Data

Operating Pressure	90 PSI
Torque Output	220 in-lbs
Motor Speed	500 rpm
Air Consumption (at free speed)	30 cfm
Horse Power Rating	0.5
Weight	3.5lb



Standard Assembly



How To Order

- Select the fastener size being used.
- Select the appropriate tool from Table below

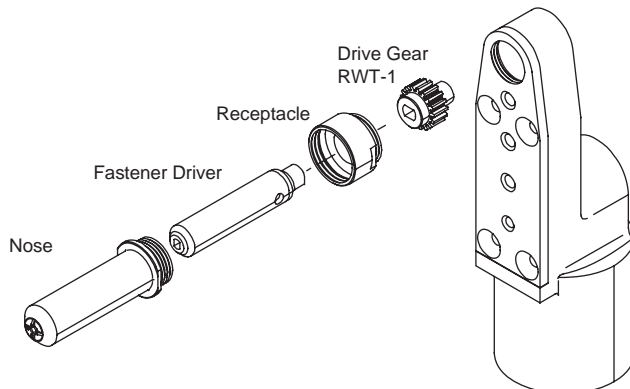
Example: 7440-5

Part Number Includes

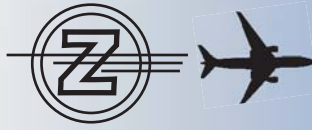
- 7440 Pneumatic Right Angle Motor.
- PW465 Driver Assembly.

Dia.	Visu-Lok Series	Pneumatic Driver	Driver Assy	Nose	Driver
5/32"	flush - 5	7440-5	PW465	PW3652	PW4651
3/16"	flush - 6	7440-6	PW400	PW3002	PW4001
1/4"	flush - 8	7440-8	PW460	PW3602	PW4601
5/32"	protruding - 5	7440-5P	PW465P	PW3652P	PW4651
3/16"	protruding - 6	7440-6P	PW400P	PW3002P	PW4001
1/4"	protruding - 8	7440-8P	PW460P	PW3602P	PW4601
5/32"	millable - 5	7440-5A	PW465A	PW3652A	PW4651
3/16"	millable - 6	7440-6A	PW400A	PW3002A	PW4001
1/4"	millable - 8	7440-8A	PW460A	PW3602A	PW4601
5/32"	reduced flush - 5	7440-5T	PW465T	PW3652T	PW4651
3/16"	reduced flush - 6	7440-6T	PW400T	PW3002T	PW4001
1/4"	reduced flush - 8	7440-8T	PW460T	PW3602T	PW4601

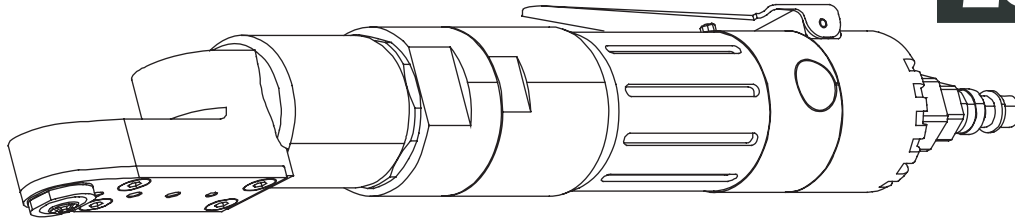
*Driver Assembly contains both the Nose and Driver



Technical Data	
Operating Pressure	90 PSI
Torque Output	220 in-lbs
Motor Speed	500 rpm
Air Consumption (at free speed)	30 cfm
Horse Power Rating	0.5
Weight	3.5lb



Pneumatic Close Quarter



How To Order

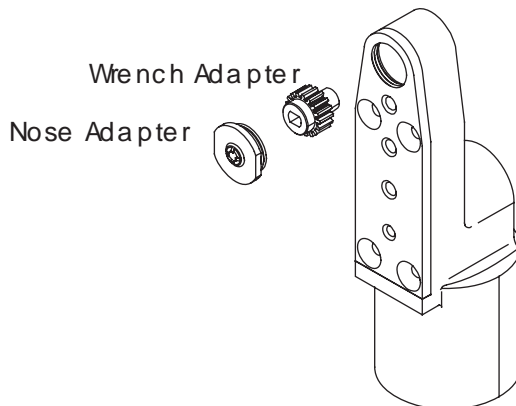
- Select the fastener size being used.
- Select the appropriate tool from Table below

Example: 7440C-5

Part Number Includes

- 7440C Pneumatic Right Angle Close Quarter Motor.
- 41165 Nose Tip
- RW5-1 Driver Gear

Dia.	Visu-Lok Series	Pneumatic Driver	Drive Gear	Nose Tip
5/32"	flush - 5	7440C-5	RW5-1	41165
3/16"	flush - 6	7440C-6	RW6-1	41200
1/4"	flush - 8	7440C-8	RW8-1	41260
5/32"	protruding - 5	7440C-5P	RW5-1	41165P
3/16"	protruding - 6	7440C-6P	RW6-1	41200P
1/4"	protruding - 8	7440C-8P	RW8-1	41260P
5/32"	millable - 5	7440C-5A	RW5-1	41165A
3/16"	millable - 6	7440C-6A	RW6-1	41200A
1/4"	millable - 8	7440C-8A	RW8-1	41260A
5/32"	reduced flush - 5	7440C-5T	RW5-1	41165T
3/16"	reduced flush - 6	7440C-6T	RW6-1	41200T
1/4"	reduced flush - 8	7440C-8T	RW8-1	41260T



Technical Data	
Operating Pressure	90 PSI
Torque Output	220 in-lbs
Motor Speed	500 rpm
Air Consumption (at free speed)	30 cfm
Horse Power Rating	0.5
Weight	3.5lb



Ratchet Hand Tool



How To Order

- Determine the type (flush, protruding, etc) and size of the fastener.
- Refer to the table to select the correct part number for the required tool.

Example: HWF165

Part Number Includes

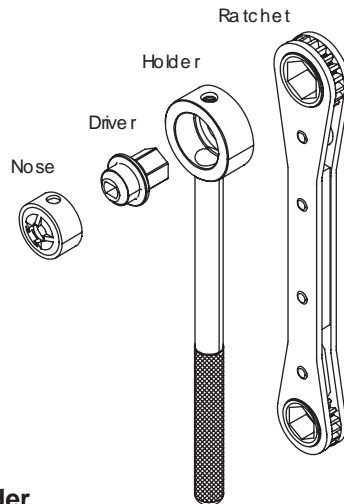
- HW300 Ratchet Wrench
- HW1650 Adapter Assembly
(HW1652, HW1651)

Dia.	Visu-Lok Series	Complete Assembly	Driver Assembly	Nose	Wrench Driver
5/32"	flush - 5	HWF165	HW1650	HW1652	HW1651
3/16"	flush - 6	HWF200	HW2000	HW2002	HW2001
1/4"	flush - 8	HWF260	HW2600	HW2602	HW2601
5/16"	flush - 10	HWF312	HW3120	HW3122	HW3121
3/8"	flush - 12	HWF375	HW3750	HW3752	HW3751
5/32"	protruding - 5	HWP165	HW1650P	HW1652P	HW1651
3/16"	protruding - 6	HWP200	HW2000P	HW2002P	HW2001
1/4"	protruding - 8	HWP260	HW2600P	HW2602P	HW2601
5/16"	protruding - 10	HWP312	HW3120P	HW3122P	HW3121
3/8"	protruding - 12	HWP375	HW3750P	HW3752P	HW3751
5/32"	millable - 5	HWA165	HW1650A	HW1652A	HW1651
3/16"	millable - 6	HWA200	HW2000A	HW2002A	HW2001
1/4"	millable - 8	HWA260	HW2600A	HW2602A	HW2601
5/32"	reduced flush - 5	HWT165	HW1650T	HW1652T	HW1651
3/16"	reduced flush - 6	HWT200	HW2000T	HW2002T	HW2001
1/4"	reduced flush - 8	HWT260	HW2600T	HW2602T	HW2601
5/16"	reduced flush - 10	HWT312	HW3120T	HW3122T	HW3121
3/8"	reduced flush - 12	HWT375	HW3750T	HW3752T	HW3751

*Driver Assembly contains both the Nose and Driver



Close Quarter Hand Tool



How To Order

- Select the fastener size.
- Refer to the table to select the correct part number for the tool.

Example: HWF5

Part Number Includes

- HW101 Ratchet Wrench
- HW102 Adapter Assembly
- HN5 Nose
- HW5 Drive

Dia.	Visu-Lok Series	Complete Assembly	Drive	Nose	Ratchet	Holder
5/32"	flush - 5	HWF5	HW5	HN5	HW101	HW102
3/16"	flush - 6	HWF6	HW6	HN6		
1/4"	flush - 8	HWF8	HW8	HN8	HW401	HW402
5/16"	flush - 10	HWF10	HW10	HN10		
3/8"	flush - 12	HWF12	HW12	HN1		
5/32"	protruding - 5	HWP5	HW5	HN5P	HW101	HW102
3/16"	protruding - 6	HWP6	HW6	HN6P		
1/4"	protruding - 8	HWP8	HW8	HN8P	HW401	HW402
5/16"	protruding - 10	HWP10	HW10	HN10P		
3/8"	protruding - 12	HWP12	HW12	HN1P		
5/32"	millable - 5	HWA5	HW5	HN5A	HW101	HW102
3/16"	millable - 6	HWA6	HW6	HN6A		
1/4"	millable - 8	HWA8	HW8	HN8A	HW401	HW402
5/32"	reduced flush - 5	HWT5	HW5	HN5T	HW101	HW102
3/16"	reduced flush - 6	HWT6	HW6	HN6T		
1/4"	reduced flush - 8	HWT8	HW8	HN8T	HW401	HW402
5/16"	reduced flush - 10	HWT10	HW10	HN10T		
3/8"	reduced flush - 12	HWT12	HW12	HN1T		

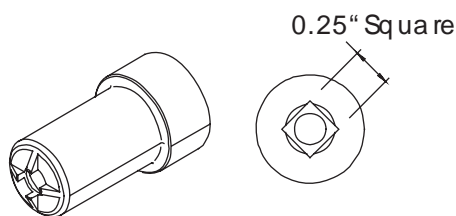


Torque Adapter



How To Order:

- Select the fastener size being used.
- Select the appropriate tool part number from the table

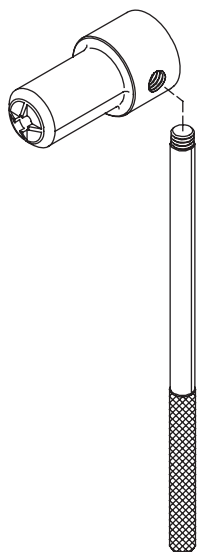


Dia.	Visu-Lok Series	Toque Adapter	Torque (in. lbs.)
5/32"	flush - 5	TOR1652	4.00
3/16"	flush - 6	TOR2002	6.00
1/4"	flush - 8	TOR2602	10.00
5/16"	flush - 10	TOR3122	20.00
3/8"	flush - 12	TOR3752	30.00
5/32"	protruding - 5	TOR1652P	4.00
3/16"	protruding - 6	TOR2002P	6.00
1/4"	protruding - 8	TOR2602P	10.00
5/16"	protruding - 10	TOR3122P	20.00
3/8"	protruding - 12	TOR3752P	30.00
5/32"	millable - 5	TOR1652A	4.00
3/16"	millable - 6	TOR2002A	6.00
1/4"	millable - 8	TOR2602A	10.00
5/32"	reduced flush - 5	TOR1652T	4.00
3/16"	reduced flush - 6	TOR2002T	6.00
1/4"	reduced flush - 8	TOR2602T	10.00
5/16"	reduced flush - 10	TOR3122T	20.00
3/8"	reduced flush - 12	TOR3752T	30.00

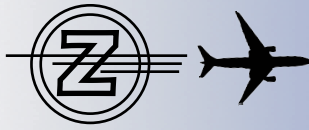
Hand Drill-Out

How To Order:

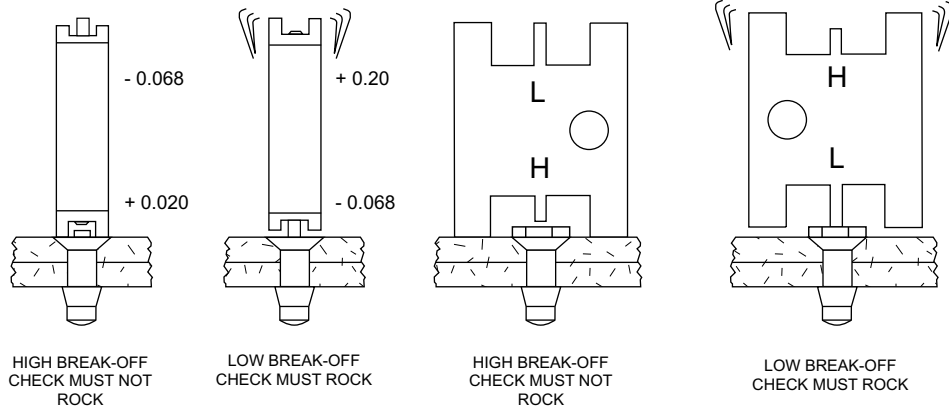
- Select the fastener size being used.
- Select the appropriate tool part number from the table



Dia.	Visu-Lok Series	Hand Drill Out	Drill Size
5/32"	flush - 5	HDO1652	9/64"
3/16"	flush - 6	HDO2002	5/32"
1/4"	flush - 8	HDO2602	13/64"
5/16"	flush - 10	HDO3122	1/4"
3/8"	flush - 12	HDO3752	9/32"
5/32"	protruding - 5	HDO1652P	9/64"
3/16"	protruding - 6	HDO2002P	5/32"
1/4"	protruding - 8	HDO2602P	13/64"
5/16"	protruding - 10	HDO3122P	1/4"
3/8"	protruding - 12	HDO3752P	9/32"
5/32"	millable - 5	HDO1652A	9/64"
3/16"	millable - 6	HDO2002A	5/32"
1/4"	millable - 8	HDO2602A	13/64"
5/32"	reduced flush - 5	HDO1652T	9/64"
3/16"	reduced flush - 6	HDO2002T	5/32"
1/4"	reduced flush - 8	HDO2602T	13/64"
5/16"	reduced flush - 10	HDO3122T	1/4"
3/8"	reduced flush - 12	HDO3752T	9/32"



Visu-Lok Break-Off Gauges



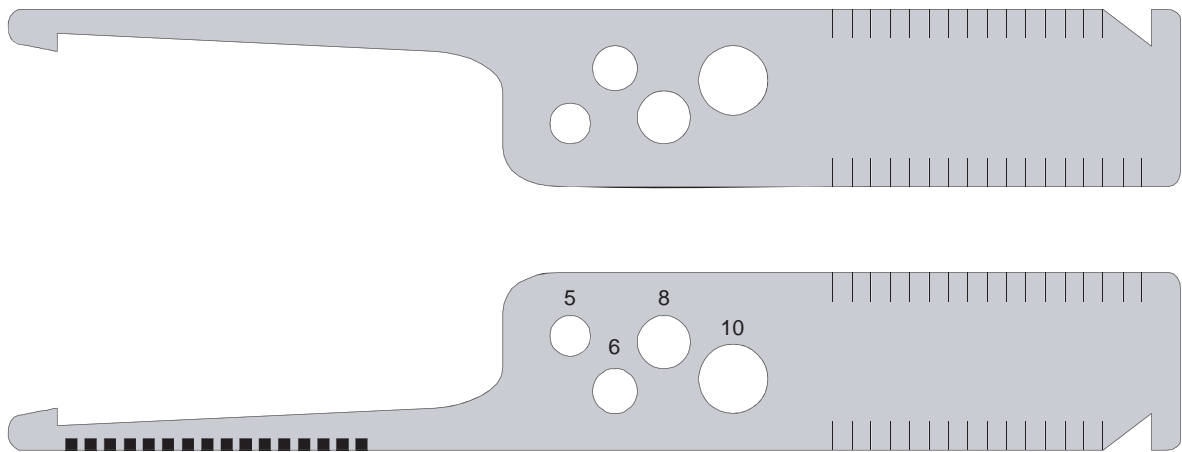
Visu-Lok Series	Leaf Gauges	Break-Off Limits	Round Gauges	Break-Off Limits	Jo-Bolt Series
PLT210-5	3P5	+ .088/+ .000	-	-	-
PLT210-6	3P6	+ .098/+ .010	4P6	- .005/- .103	P/PO 200
PLT210-8	3P8	+ .135/+ .047	4P8	+ .010/- .088	P/PO 260
PLT210-10	3P10	+ .146/+ .043	4P10	- .004/- .117	P/PO 312
PLT210-12	3P12	+ .152/+ .049	4P12	- .028/- .141	P/PO 375
PLT110-5	3F5	+ .020/- .068	4F5	+ .020/- .068	-
PLT110-6	3F6	+ .015/- .073	4F6	+ .015/- .073	-
PLT110-8	3F8	+ .010/- .078	4F8	+ .010/- .078	-
PLT110-10	3F10	+ .010/- .083	4F10	+ .010/- .083	-
PLT110-12	3F12	+ .010/- .093	4F12	+ .010/- .093	-
PLT220-5	A3P5	+ .088/+ .000	-	-	-
PLT220-6	A3P6	+ .103/+ .015	-	-	-
PLT220-8	A3P8	+ .130/+ .032	-	-	-
PLT220-10	A3P10	+ .130/+ .027	-	-	-
PLT220-12	A3P12	+ .130/+ .027	-	-	-
PLT120-5	-	-	A4F5-LS	+ .082/- .006	-
PLT120-6	-	-	A4F6-LS	+ .072/- .016	-
PLT120-8	-	-	A4F8-LS	+ .072/- .031	-
PLT120-10	-	-	A4F10-LS	+ .072/- .031	-
PLT120-12	-	-	A4F12-LS	+ .072/- .031	-
PLT130-5	3P5	+ .088/+ .000	-	-	-
PLT130-6	3P6	+ .098/+ .010	4FA6	+ .025/- .069	SHFA/FAO 200
PLT130-8	3P6	+ .098/+ .010	4FA8	+ .026/- .069	SHFA/FAO 260
PLT230-5	3P5	+ .088/+ .000	-	-	-
PLT230-6	3PA6	+ .103/+ .015	-	-	-
PLT230-8	3P8	+ .135/+ .047	-	-	-
PLT1058-5	-	-	LF5-F5	+ .088/+ .000	-
PLT1058-6	-	-	LF5-F5	+ .088/+ .000	-
PLT1058-8	-	-	LF5-F8	+ .098/+ .000	-
PLT1058-10	-	-	LF5-F10	+ .103/+ .000	-
PLT1058-12	-	-	LF5-F10	+ .103/+ .000	-



**Visu-Lok
Grip Scales**



Grip Scale Part #: LFVLG-1



Selection of Grip Length

In measuring hole depth take reading where the skin surface meets the number or line on gauge. If directly on a line use either the indicated grip or the next longer grip.

In cases where there a tapered sheet condition exists, determine grip length at the hole centerline. The taper must not exceed 7° to ensure the proper performance of the fastener.



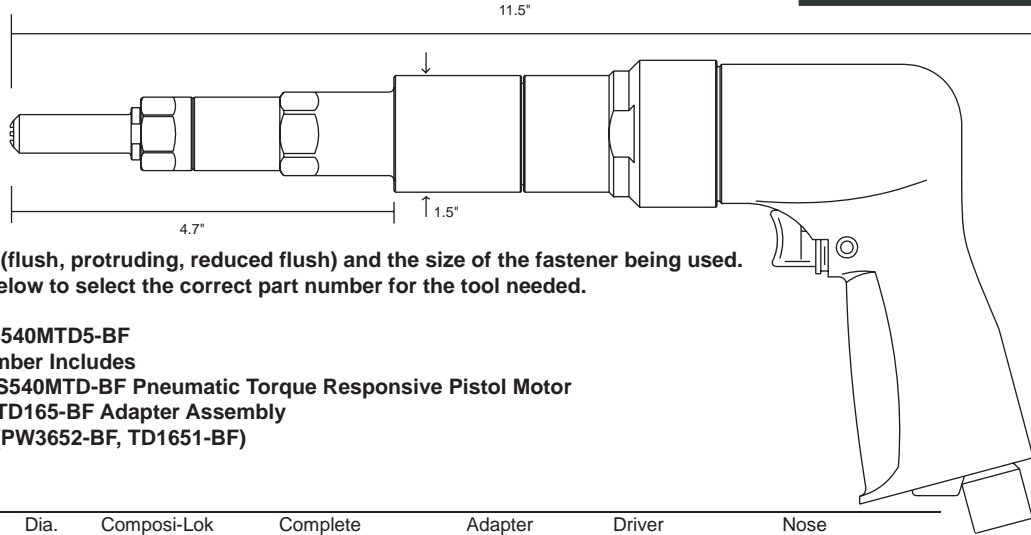


Composi-Lok

Blind Fastener Tools



Composi-Lok Master Torque Driver



How To Order:

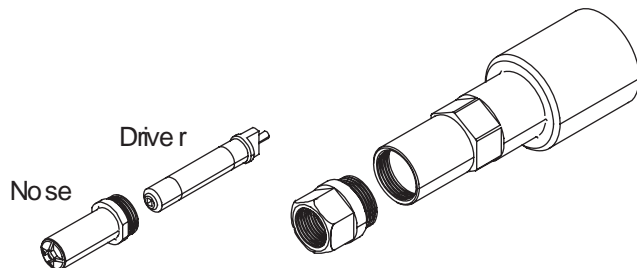
- Determine the type (flush, protruding, reduced flush) and the size of the fastener being used.
- Refer to the table below to select the correct part number for the tool needed.

Example: S540MTD5-BF

Part Number Includes

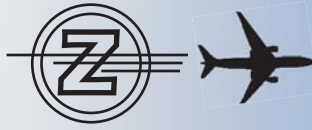
- S540MTD-BF Pneumatic Torque Responsive Pistol Motor
- TD165-BF Adapter Assembly (PW3652-BF, TD1651-BF)

Dia.	Composi-Lok Series	Complete Assembly	Adapter Assembly	Driver	Nose
5/32"	flush - 5	S540MTD5 - BF	TD165 - BF	TD1651 - BF	PW3652 - BF
3/16"	flush - 6	S540MTD6 - BF	TD200 - BF	TD2001 - BF	PW3002 - BF
7/32"	flush - 7	S540MTD7 - BF	TD220 - BF	TD7 - BF	PW7F - BF
1/4"	flush - 8	S540MTD8 - BF	TD260 - BF	TD2601 - BF	PW3602 - BF
9/32"	flush - 9	S540MTD9 - BF	PT280 - BF	PT9 - BF	PT9F - BF
5/16"	flush - 10	S540MTD10 - BF	PT312 - BF	PT10 - BF	PT10F - BF
11/32"	flush - 11	S540MTD11 - BF	PT340 - BF	PT11 - BF	PT11F - BF
3/8"	flush - 12	S540MTD12 - BF	PT375 - BF	PT12 - BF	PT12F - BF
5/32"	protruding - 5	S540MTD5P - BF	TD165P - BF	TD1651 - BF	PW3652P - BF
3/16"	protruding - 6	S540MTD6P - BF	TD200P - BF	TD2001 - BF	PW3002P - BF
7/32"	protruding - 7	S540MTD7P - BF	TD220P - BF	TD7 - BF	PW7P - BF
1/4"	protruding - 8	S540MTD8P - BF	TD260P - BF	TD2601 - BF	PW3602P - BF
9/32"	protruding - 9	S540MTD9P - BF	PT280P - BF	PT9 - BF	PT9P - BF
5/16"	protruding - 10	S540MTD10P - BF	PT312P - BF	PT10 - BF	PT10P - BF
11/32"	protruding - 11	S540MTD11P - BF	PT340P - BF	PT11 - BF	PT11P - BF
3/8"	protruding - 12	S540MTD12P - BF	PT375P - BF	PT12 - BF	PT12P - BF
5/32"	reduced flush - 5	S540MTD5T-BF	TD165T-BF	TD1651-BF	PW3652T-BF
3/16"	reduced flush - 6	S540MTD6T-BF	TD200T-BF	TD2001-BF	PW3002T-BF
7/32"	reduced flush - 7	S540MTD7T-BF	TD220T-BF	TD7-BF	PW7FT-BF
1/4"	reduced flush - 8	S540MTD8T-BF	TD260T-BF	TD2601-BF	PW3602T-BF
9/32"	reduced flush - 9	S540MTD9T-BF	PT280T-BF	PT9-BF	PT9FT-BF
5/16"	reduced flush - 10	S540MTD10T-BF	PT312T-BF	PT10-BF	PT10FT-BF
11/32"	reduced flush - 11	S540MTD11T-BF	PT340T-BF	PT11-BF	PT11FT-BF
3/8"	reduced flush - 12	S540MTD12T-BF	PT375T-BF	PT12-BF	PT12FT-BF



Technical Data

Operating Pressure	90 PSI
Torque Output	220 in-lbs
Motor Speed	540 rpm
Air Consumption (at free speed)	30 cfm
Horse Power Rating	0.5
Weight	3.5lb



**Composi-Lok
 Right Angle Master Torque Driver**



How To Order:

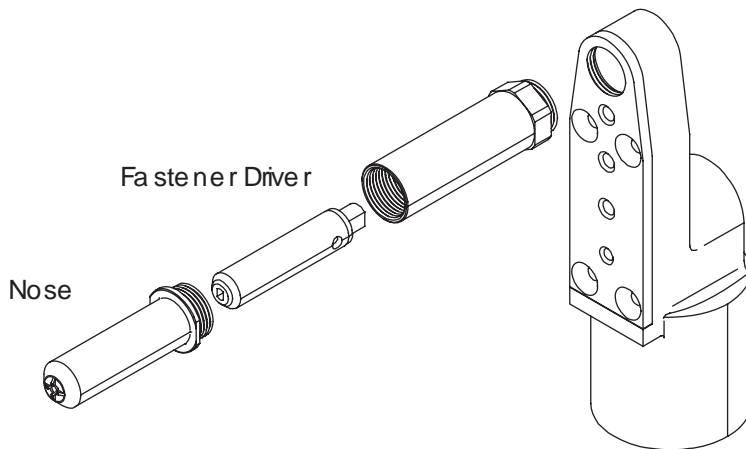
- Determine the type (flush, protruding, reduced flush) and the size of the fastener being used.
- Refer to the table below to select the correct part number for the tool needed.

Example: 7440M5-BF

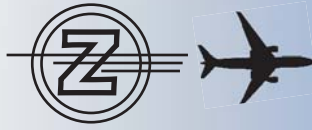
Part Number Includes

- 7440M Torque Responsive Pneumatic Wrench Motor
- TD565-BF Adapter Assembly
 (TD5652-BF, TD5651-BF)

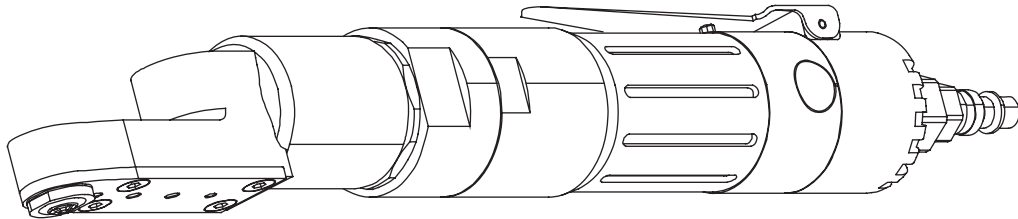
Dia.	Composi-Lok Series	Complete Assembly	Adapter Assembly	Wrench Driver	Nose Adapter
5/32"	flush - 5	7440M5 - BF	TD565 - BF	TD5651 - BF	TD5652 - BF
3/16"	flush - 6	7440M6 - BF	TD500 - BF	TD5001 - BF	TD5002 - BF
7/32"	flush - 7	7440M7 - BF	TD520 - BF	TD5201 - BF	TD5202 - BF
1/4"	flush - 8	7440M8 - BF	TD560 - BF	TD5601 - BF	TD5602 - BF
5/32"	protruding - 5	7440M5P - BF	TD565P - BF	TD5651 - BF	TD5652P - BF
3/16"	protruding - 6	7440M6P - BF	TD500P - BF	TD5001 - BF	TD5002P - BF
7/32"	protruding - 7	7440M7P - BF	TD520P - BF	TD5201 - BF	TD5202P - BF
1/4"	protruding - 8	7440M8P - BF	TD560P - BF	TD5601 - BF	TD5602P - BF
5/32"	reduced flush - 5	7440M5T - BF	TD565T-BF	TD5651-BF	TD5652T-BF
3/16"	reduced flush - 6	7440M6T - BF	TD500T-BF	TD5001-BF	TD5002T-BF
7/32"	reduced flush - 7	7440M7T - BF	TD520T-BF	TD5201-BF	TD5202T-BF
1/4"	reduced flush - 8	7440M8T - BF	TD560T-BF	TD5601-BF	TD5602T-BF



Technical Data	
Operating Pressure	90 PSI
Torque Output	220 in-lbs
Motor Speed	500 rpm
Air Consumption (at free speed)	30 cfm
Horse Power Rating	0.5
Weight	3.5lb



**Composi-Lok
 Right Angle Close Quarter**



How To Order:

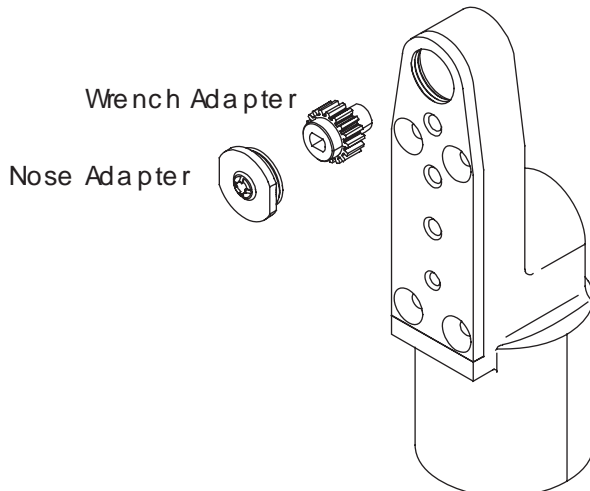
- Determine the type (flush, protruding, reduced flush) and the size of the fastener being used.
- Refer to the table below to select the correct part number for the tool needed.

Example: 7440C5-BF

Part Number Includes

- 7440C Close Quarters Pneumatic Motor
- 41165-BF Nose Adapter
- RW5-1-BF Wrench Adapter

Dia.	Composi-Lok Series	Complete Assembly	Drive Gear	Nose
5/32"	flush - 5	7440C5 - BF	RW5-1-BF	41165 - BF
3/16"	flush - 6	7440C6 - BF	RW6-1-BF	41200 - BF
7/32"	flush - 7	7440C7 - BF	RW7-1-BF	41220 - BF
1/4"	flush - 8	7440C8 - BF	RW8-1-BF	41260 - BF
5/32"	protruding - 5	7440C5P - BF	RW5-1-BF	41165P- BF
3/16"	protruding - 6	7440C6P - BF	RW6-1-BF	41200P- BF
7/32"	protruding - 7	7440C7P - BF	RW7-1-BF	41220P- BF
1/4"	protruding - 8	7440C8P - BF	RW8-1-BF	41260P- BF
5/32"	reduced flush - 5	7440C5T - BF	RW5-1-BF	41165T-BF
3/16"	reduced flush - 6	7440C6T - BF	RW6-1-BF	41200T-BF
7/32"	reduced flush - 7	7440C7T - BF	RW7-1-BF	41220T-BF
1/4"	reduced flush - 8	7440C8T - BF	RW8-1-BF	41260T-BF



Technical Data

Operating Pressure	90 PSI
Torque Output	220 in-lbs
Motor Speed	500 rpm
Air Consumption (at free speed)	30 cfm
Horse Power Rating	0.5
Weight	3.5lb



Composi-Lok Ratchet Hand Tool

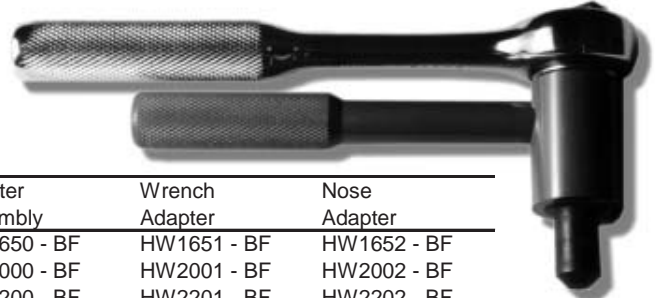
How To Order:

- Determine the type (flush, protruding, reduced flush) and the size of the fastener being used.
- Refer to the table below to select the correct part number for the tool needed.

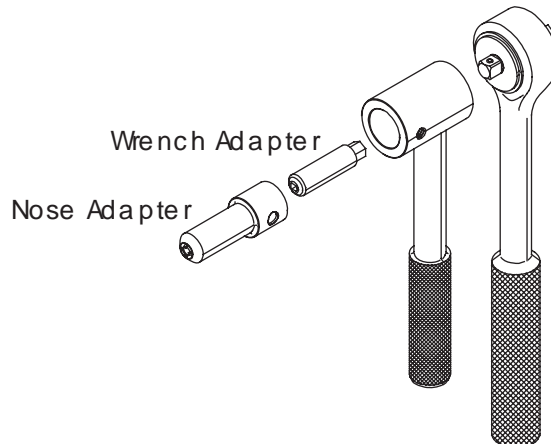
Example: HW165-BF

Part Number Includes

- HW300 Ratchet Wrench
- HW202 Handle
- HW1650-BF Adapter Assembly
(HW1652-BF, HW1651-BF)



Dia.	Composi-Lok Series	Complete Assembly	Adapter Assembly	Wrench Adapter	Nose Adapter
5/32"	flush - 5	HWF165 - BF	HW1650 - BF	HW1651 - BF	HW1652 - BF
3/16"	flush - 6	HWF200 - BF	HW2000 - BF	HW2001 - BF	HW2002 - BF
7/32"	flush - 7	HWF220 - BF	HW2200 - BF	HW2201 - BF	HW2202 - BF
1/4"	flush - 8	HWF260 - BF	HW2600 - BF	HW2601 - BF	HW2602 - BF
9/32"	flush - 9	HWF280 - BF	HW2800 - BF	HW2801 - BF	HW2802 - BF
5/16"	flush - 10	HWF312 - BF	HW3120 - BF	HW3121 - BF	HW3122 - BF
11/32"	flush - 11	HWF340 - BF	HW3400 - BF	HW3401 - BF	HW3402 - BF
3/8"	flush - 12	HWF375 - BF	HW3750 - BF	HW3751 - BF	HW3752 - BF
5/32"	protruding - 5	HWP165 - BF	HW1650P - BF	HW1651 - BF	HW1652P - BF
3/16"	protruding - 6	HWP200 - BF	HW2000P - BF	HW2001 - BF	HW2002P - BF
7/32"	protruding - 7	HWP220 - BF	HW2200P - BF	HW2201 - BF	HW2202P - BF
1/4"	protruding - 8	HWP260 - BF	HW2600P - BF	HW2601 - BF	HW2602P - BF
9/32"	protruding - 9	HWP280 - BF	HW2800P - BF	HW2801 - BF	HW2802P - BF
5/16"	protruding - 10	HWP312 - BF	HW3120P - BF	HW3121 - BF	HW3122P - BF
11/32"	protruding - 11	HWP340 - BF	HW3400P - BF	HW3401 - BF	HW3402P - BF
3/8"	protruding - 12	HWP375 - BF	HW3750P - BF	HW3751 - BF	HW3752P - BF
5/32"	reduced flush - 5	HWT165-BF	HW1650T-BF	HW1651-BF	HW1652T-BF
3/16"	reduced flush - 6	HWT200-BF	HW2000T-BF	HW2001-BF	HW2002T-BF
7/32"	reduced flush - 7	HWT220-BF	HW2200T-BF	HW2201-BF	HW2202T-BF
1/4"	reduced flush - 8	HWT260-BF	HW2600T-BF	HW2601-BF	HW2602T-BF
9/32"	reduced flush - 9	HWT280-BF	HW2800T-BF	HW2801-BF	HW2802T-BF
5/16"	reduced flush - 10	HWT312-BF	HW3120T-BF	HW3121-BF	HW3122T-BF
11/32"	reduced flush - 11	HWT340-BF	HW3400T-BF	HW3401-BF	HW3402T-BF
3/8"	reduced flush - 12	HWT375-BF	HW3750T-BF	HW3751-BF	HW3752T-BF





Composi-Lok Close Quarter Hand Tool

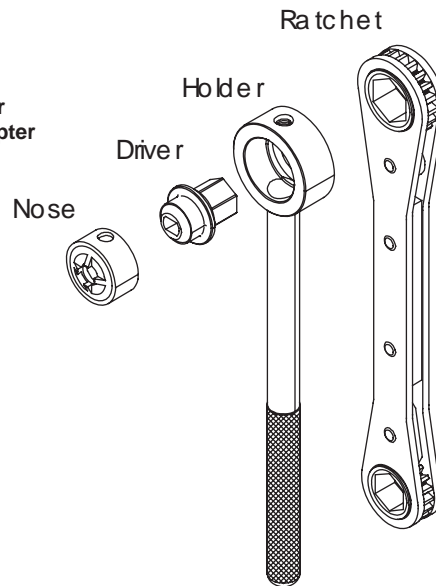
How To Order:

- Determine the type (flush, protruding, reduced flush) and the size of the fastener being used.
- Refer to the table below to select the correct part number for the tool needed.

Example: HW5-BF

Part Number Includes

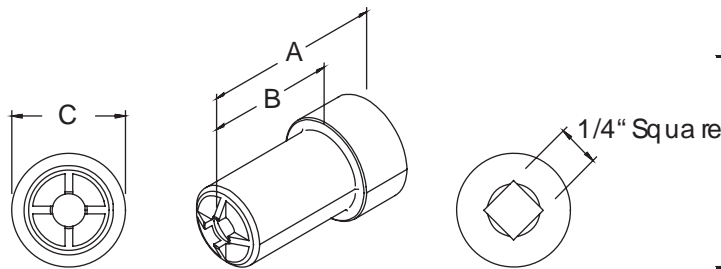
- HW401 Ratchet
- HW402 Holder
- HN5-BF Nose Adapter
- HW5-BF Wrench Adapter



Dia.	Composi-Lok Series	Complete Assembly	Driver	Nose	Ratchet	Holder
5/32"	flush - 5	HWF5 - BF	HW5 - BF	HN5 - BF		
3/16"	flush - 6	HWF6 - BF	HW6 - BF	HN6 - BF	HW101	HW102
7/32"	flush - 7	HWF7 - BF	HW7 - BF	HN7 - BF		
1/4"	flush - 8	HWF8 - BF	HW8 - BF	HN8 - BF		
9/32"	flush - 9	HWF9 - BF	HW9 - BF	HN9 - BF	HW401	HW402
5/16"	flush - 10	HWF10 - BF	HW10 - BF	HN10 - BF		
11/32"	flush - 11	HWF11 - BF	HW11 - BF	HN11 - BF		
3/8"	flush - 12	HWF12 - BF	HW12 - BF	HN12 - BF		
5/32"	protruding - 5	HWP5 - BF	HW5 - BF	HN5P - BF	HW101	HW102
3/16"	protruding - 6	HWP6 - BF	HW6 - BF	HN6P - BF		
7/32"	protruding - 7	HWP7 - BF	HW7 - BF	HN7P - BF		
1/4"	protruding - 8	HWP8 - BF	HW8 - BF	HN8P - BF		
9/32"	protruding - 9	HWP9 - BF	HW9 - BF	HN9P - BF	HW401	HW402
5/16"	protruding - 10	HWP10 - BF	HW10 - BF	HN10P - BF		
11/32"	protruding - 11	HWP11 - BF	HW11 - BF	HN11P - BF		
3/8"	protruding - 12	HWP12 - BF	HW12 - BF	HN12P - BF		
5/32"	reduced flush - 5	HWT5-BF	HW5-BF	HN5T-BF	HW101	HW102
3/16"	reduced flush - 6	HWT6-BF	HW6-BF	HN6T-BF		
7/32"	reduced flush - 7	HWT7-BF	HW7-BF	HN7T-BF		
1/4"	reduced flush - 8	HWT8-BF	HW8-BF	HN8T-BF		
9/32"	reduced flush - 9	HWT9-BF	HW9-BF	HN9T-BF	HW401	HW402
5/16"	reduced flush - 10	HWT10-BF	HW10-BF	HN10T-BF		
11/32"	reduced flush - 11	HWT11-BF	HW11-BF	HN11T-BF		
3/8"	reduced flush - 12	HWT12-BF	HW12-BF	HN12T-B		



Composi-Lok Hand Torque Adapter

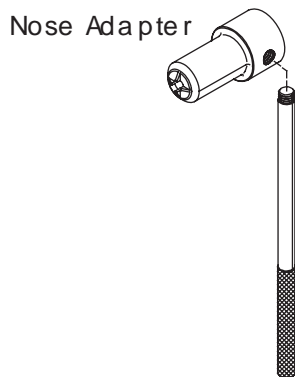


Dia.	Composi-Lok Series	Torque Adapter	Torque (in lbs)
5/32"	flush - 05	TOR1652-BF	4.00
3/16"	flush - 06	TOR2002-BF	6.00
7/32"	flush - 07	TOR2202-BF	Contact Fastener Mfg.
1/4"	flush - 08	TOR2602-BF	10.00
9/32"	flush - 09	TOR2802-BF	Contact Fastener Mfg.
5/16"	flush - 10	TOR3122-BF	20.00
11/32"	flush - 11	TOR3402-BF	Contact Fastener Mfg.
3/8"	flush - 12	TOR3702-BF	30.00
5/32"	protruding - 05	TOR1652P - BF	4.00
3/16"	protruding - 06	TOR2002P - BF	6.00
7/32"	protruding - 07	TOR2202P - BF	Contact Fastener Mfg.
1/4"	protruding - 08	TOR2602P - BF	10.00
9/32"	protruding - 09	TOR2802P - BF	Contact Fastener Mfg.
5/16"	protruding - 10	TOR3122P - BF	20.00
11/32"	protruding - 11	TOR3402P - BF	Contact Fastener Mfg.
3/8"	protruding - 12	TOR3702P - BF	30.00
5/32"	reduced flush - 05	TOR1652T-BF	4.00
3/16"	reduced flush - 06	TOR2002T-BF	6.00
7/32"	reduced flush - 07	TOR2202T-BF	Contact Fastener Mfg.
1/4"	reduced flush - 08	TOR2602T-BF	10.00
9/32"	reduced flush - 09	TOR2802T-BF	Contact Fastener Mfg.
5/16"	reduced flush - 10	TOR3122T-BF	20.00
11/32"	reduced flush - 11	TOR3402T-BF	Contact Fastener Mfg.
3/8"	reduced flush - 12	TOR3702T-BF	30.00

Composi-Lok Hand Drill-Out

How To Order:

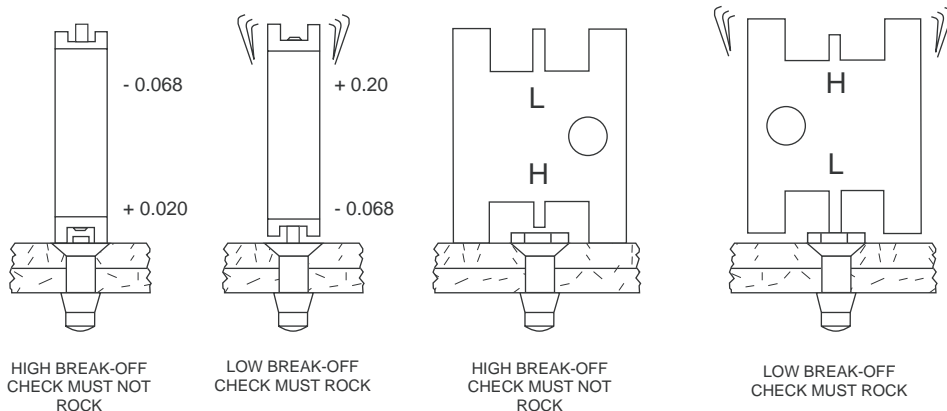
- Select the fastener type (flush, protruding, reduced flush) and size being used.
- Select the appropriate tool part number from the table



Dia.	Visu-Lok Series	Hand Drill Out	Drill Size
5/32"	flush - 5	HDO1652	9/64"
3/16"	flush - 6	HDO2002	5/32"
1/4"	flush - 8	HDO2602	13/64"
5/16"	flush - 10	HDO3122	1/4"
3/8"	flush - 12	HDO3752	9/32"
5/32"	protruding - 5	HDO1652P	9/64"
3/16"	protruding - 6	HDO2002P	5/32"
1/4"	protruding - 8	HDO2602P	13/64"
5/16"	protruding - 10	HDO3122P	1/4"
3/8"	protruding - 12	HDO3752P	9/32"
5/32"	millable - 5	HDO1652A	9/64"
3/16"	millable - 6	HDO2002A	5/32"
1/4"	millable - 8	HDO2602A	13/64"
5/32"	reduced flush - 5	HDO1652T	9/64"
3/16"	reduced flush - 6	HDO2002T	5/32"
1/4"	reduced flush - 8	HDO2602T	13/64"
5/16"	reduced flush - 10	HDO3122T	1/4"
3/8"	reduced flush - 12	HDO3752T	9/32"



Composi-Lok Break-Off Gauges



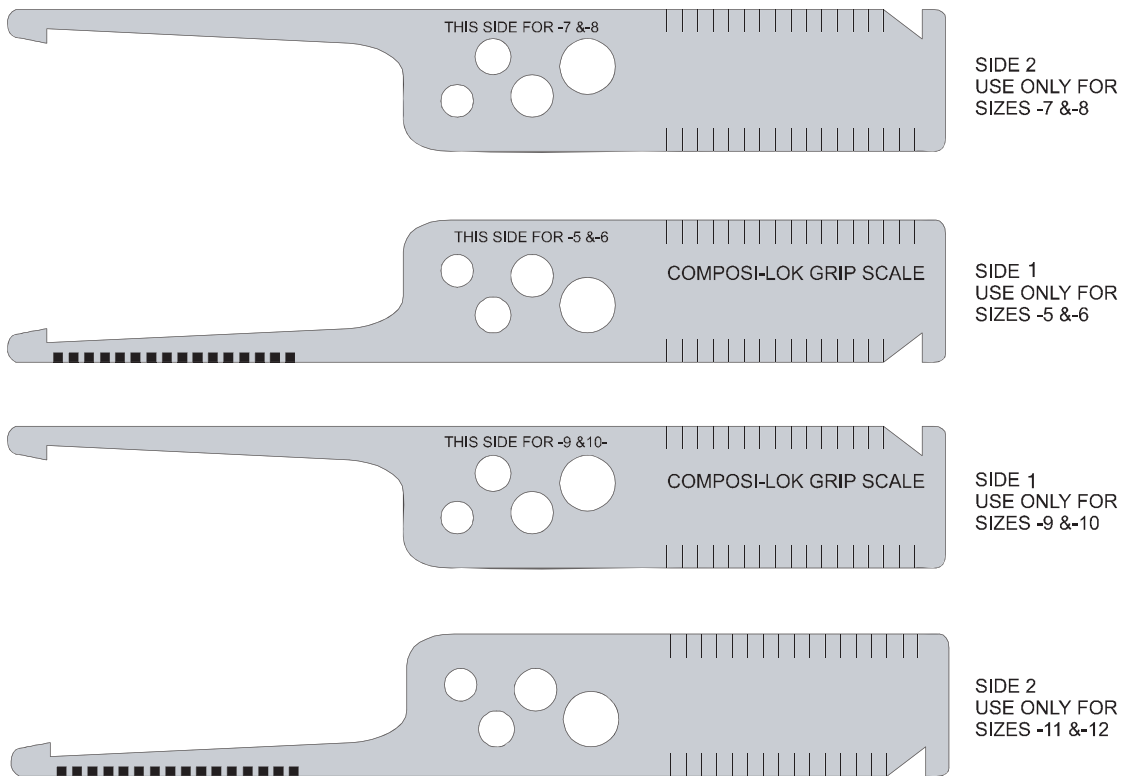
Dia	Composi-Lok Series	Leaf Gauges	Round Gauges	Break-Off Limits
5/32"	MBF2010-05	LFP7-CL	LF8-F5	+ .103/+ .000
5/32"	MBF2011-05	LFP7-CL	LF8-F5	+ .103/+ .000
5/32"	MBF2012-05	LFP7-CL	LF8-F5	+ .103/+ .000
5/32"	MBF2013-05	LFP7-CL	LF8-F5	+ .103/+ .000
3/16"	MBF2010-06	LFP7-CL	LF8-F6	+ .103/+ .000
3/16"	MBF2011-06	LFP7-CL	LF8-F6	+ .103/+ .000
3/16"	MBF2012-06	LFP7-CL	LF8-F6	+ .103/+ .000
3/16"	MBF2013-06	LFP7-CL	LF8-F6	+ .103/+ .000
7/32"	MBF2010-07	LFP7-CL	LF8-F7	+ .103/+ .000
7/32"	MBF2011-07	LFP7-CL	LF8-F7	+ .103/+ .000
7/32"	MBF2012-07	LFP7-CL	LF8-F7	+ .103/+ .000
7/32"	MBF2013-07	LFP7-CL	LF8-F7	+ .103/+ .000
1/4"	MBF2010-08	LFP7-CL	LF8-F8	+ .103/+ .000
1/4"	MBF2011-08	LFP7-CL	LF8-F8	+ .103/+ .000
1/4"	MBF2012-08	LFP7-CL	LF8-F8	+ .103/+ .000
1/4"	MBF2013-08	LFP7-CL	LF8-F8	+ .103/+ .000
9/32"	MBF2010-09	LFP7-CL	LF8-F9	+ .103/+ .000
9/32"	MBF2011-09	LFP7-CL	LF8-F9	+ .103/+ .000
9/32"	MBF2012-09	LFP7-CL	LF8-F9	+ .103/+ .000
9/32"	MBF2013-09	LFP7-CL	LF8-F9	+ .103/+ .000
5/16"	MBF2010-10	LFP7-CL	LF8-F10	+ .103/+ .000
5/16"	MBF2011-10	LFP7-CL	LF8-F10	+ .103/+ .000
5/16"	MBF2012-10	LFP7-CL	LF8-F10	+ .103/+ .000
5/16"	MBF2013-10	LFP7-CL	LF8-F10	+ .103/+ .000
11/32"	MBF2010-11	LFP7-CL	LF8-F11	+ .103/+ .000
11/32"	MBF2011-11	LFP7-CL	LF8-F11	+ .103/+ .000
11/32"	MBF2012-11	LFP7-CL	LF8-F11	+ .103/+ .000
11/32"	MBF2013-11	LFP7-CL	LF8-F11	+ .103/+ .000
3/8"	MBF2010-12	LFP7-CL	LF8-F12	+ .103/+ .000
3/8"	MBF2011-12	LFP7-CL	LF8-F12	+ .103/+ .000
3/8"	MBF2012-12	LFP7-CL	LF8-F12	+ .103/+ .000
3/8"	MBF2013-12	LFP7-CL	LF8-F12	+ .103/+ .000



**Composi-Lok
Grip Scales**



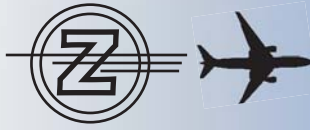
Grip Scale Part #: LFCLG-1 & LFCLG-2

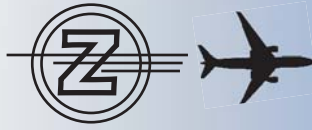


Selection of Grip Length

In measuring hole depth take reading where the skin surface meets the number or line on gauge. If directly on a line use either the indicated grip or the next longer grip.

In cases where there a tapered sheet condition exists, determine grip length at the hole centerline. The taper must not exceed 7° to ensure the proper performance of the fastener.





Visu-Lok II

Blind Fastener Tools



Universal Nose Tip™ System for Installing Drive-Nut Type Fasteners



Driver Model #	Universal Nose Tip	Nose Tip Connector	Wrench Adapter	Torque Driver
S540MTD / S540MTD-BF Pneumatic Pistol				
7440 - 90° Right Angle Driver				
7440M / 7440M-BF 90° Pneumatic Torque Responsive				
7440M / 7440M-BF Integrated Wrench / Torque Driver				
7440C Close Quarter 90° Right Angle				
HW200 / HW300 Standard Ratchet Hand Tool				
HW100 / HW400 Close Quarter Ratchet Hand Tool				

Universal Interchangeable Nose Tips

Installation tools have been simplified in the "DRIVE NUT" fastener system in both Visu-Lok II® and Composi-Lok II®

LOK-FAST has further simplified the tooling with UNIVERSAL NOSE TIP™. Now, for a given size range any nose tip may be interchangeable with any driver.

An installation tool consists of a driver and an adapter assembly. The adapter assembly is comprised of a nose adapter to engage the corebolt through rotation to clamp-up and break-off. In most cases, for a given driver, the LOK-FAST UNIVERSAL NOSE TIP™ SYSTEM uses only three complete nose adapters for all the fastener head styles, and for the complete range of sizes from 5/32" to 3/8".

Two Part Nose Adapter

The nose adapter is now a two piece design consisting of the Universal Nose Tip™ and the Nose Tip Connector™. The nose tip engages the fastener drivenut, and the nose tip is threaded onto the connector to form a complete installation tool. The two piece design allows interchanging of the nose tips among all driver configurations and further allows interchangeability between Visu-Lok II® and Composi-Lok II® installation tools. The nose tip may be removed with a standard allen wrench using clockwise rotation.

The pictorial chart on the preceding page is an illustration of the Universal Nose Tip™ System.

Universal Nose Tip™ is a Trademark of LOK-FAST, INC
Nose Tip™ Connector™ is a Trademark of LOK-FAST, INC

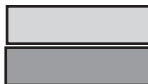


Drive-Nut Interchangeability



Dia.	Fastener	Pneumatic	Standard Right Angle	Torq. Resp. Right Angle	Close Qtr. Right Angle	Standard Hand Tool	Close Qtr. Hand Tool
-5	VLII / CLII						
-6	VLII / CLII						
-7	CLII only						
-8	VLII / CLII						
-9	CLII only						
-10	VLII / CLII						
-11	CLII only						
-12	VLII / CLII						

NOTE: VLII - represents Visu-Lok II
 CLII - represents Composi-Lok II



Composi-LokII® adapter assemblies may install Visu-Lok II®

Adapter assemblies identical for both Visu-Lok II® and Composi-Lok II®

Visu-Lok II® and Composi-Lok II® fasteners have certain common driving dimensions. The drivenuts are identical for both fasteners. In the -8, -10, and -12 diameter fasteners the wrench flats are common to both fastener types. In the -5 and -6 diameters, the wrench flats are not common to Visu-Lok II® and Composi-Lok II®. Therefore, wrench adapters used to install these fasteners are not interchangeable.

The larger blind side "footprint" of Composi-Lok II® is accomplished through the use of a longer sleeve and corebolt. The close quarter installation tools permit the corebolt to pass completely through the wrench. Therefore, in the -8, -10, and -12 diameters, close quarter installation is 100% interchangeable. In all other installation tools, the corebolt does not pass completely through the wrench. The wrench adapter (and consequently, the nose adapter) must be longer to install the Composi-Lok II®

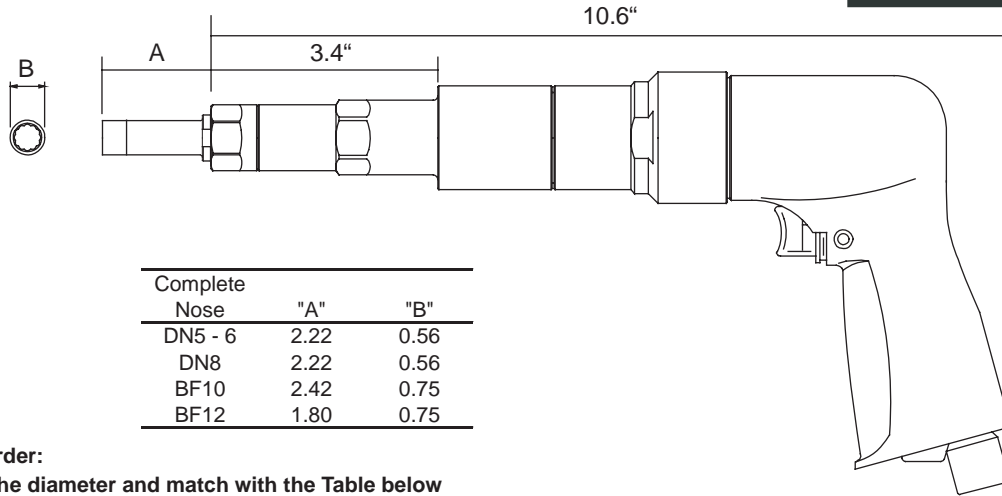
In the common wrench-flat diameters, the longer installation tooling (Composi-Lok II®) may be used to install the Visu-Lok II®, but the tooling for Visu-Lok II® may not be used for Composi-Lok II® installations.

If it is desired to standardize on one system of adapters for use with both types of fasteners, Lok-Fast provides a longer wrench adapter for the -5 and -6 Visu-Lok II® to be used with the Composi-Lok II® nose adapters.

The opposite chart illustrates the interchangeability. The two tooling systems are described in separate sections of this catalog. The new wrench adapters for Visu-Lok II® sizes -5 and -6 are contained only in the section on Visu-Lok II®. For these wrench adapters, selection of the corresponding Composi-Lok II® nose adapter is made by referring to the same page in the section on Composi-Lok tooling.



Pneumatic Pistol Driver Assembly for Visu-Lok II[®]



How To Order:

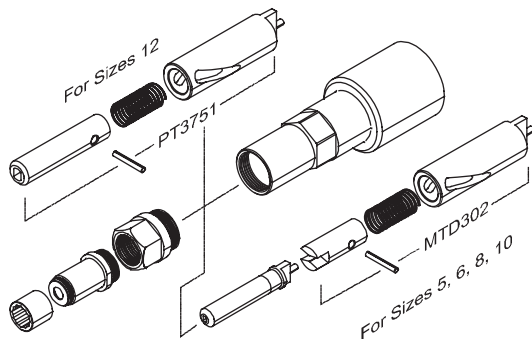
1. Select the diameter and match with the Table below
2. From the corresponding row select the complete assembly part number or the parts needed.

Example: DN8AA

Part Number Includes

- S540MTD Pneumatic Pistol Driver
- MTD302 Master Torque Driver
- DNC8 Nose Tip Connector
- DNUT5-6 Universal Nose Tip
- TD2601 Wrench Adapter

Dia.	Visu-Lok II Series	Complete Assembly	Pneumatic Pistol	Adapter Assembly	Complete Nose Adapt	Nose Tip Connector	Universal Nose Tip	Wrench Adapter
5/32"	PLT5000-5-()	DN5AA		DN5A	DN5-6	DNC5-6	DNUT5-6	TD1651
3/16"	PLT5000-6-()	DN6AA		DN6A	DN5-6	DNC5-6	DNUT5-6	TD2001
1/4"	PLT5000-8-()	DN8AA	S540MTD	DN8A	DN8	DNC8	DNUT8	TD2601
5/16"	PLT5000-10-()	DN10AA		DN10A	DN10	DNC10	DNUT12	TD3121
3/8"	PLT5000-12-()	DNPT12AA		DNPT12A	DNPT12	DNCPT12	DNUT12	PT3751

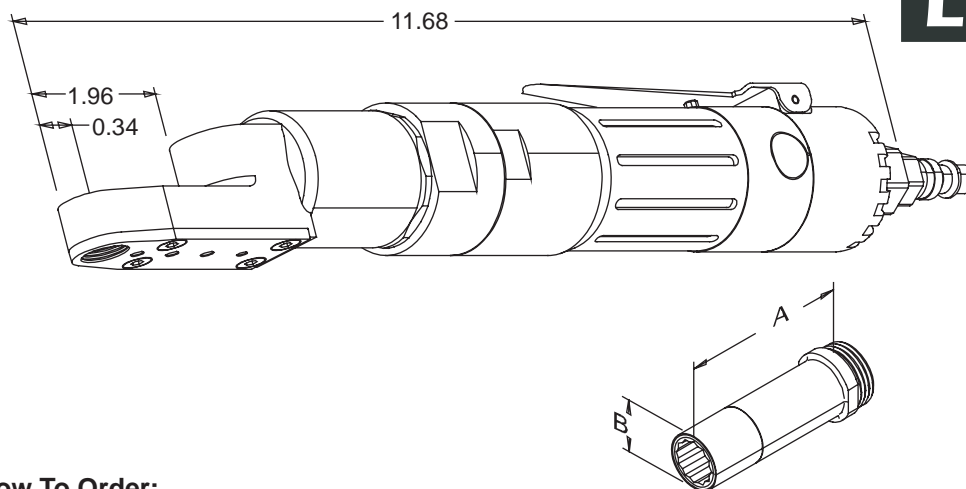


Technical Data

Operating Pressure	90 PSI
Torque Output	220 in-lbs
Motor Speed	540 rpm
Air Consumption (at free speed)	30 cfm
Horse Power Rating	0.5
Weight	3.5lb



Pneumatic Right Angle Visu-Lok II[®]



How To Order:

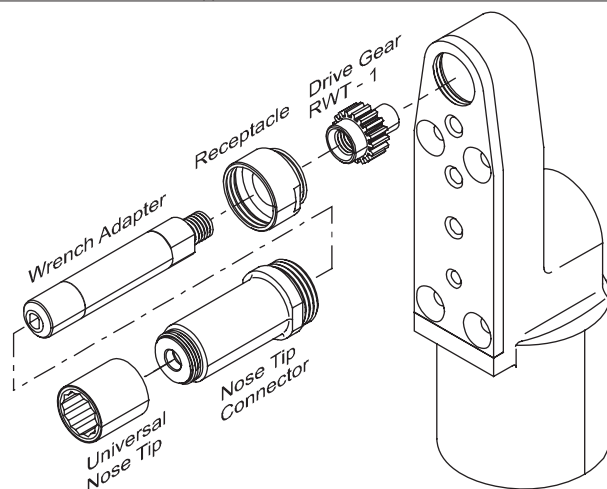
1. Select the diameter and match with the Table below
2. From the corresponding row select the complete assembly part number or the parts needed.

Example: DNR8AA

Part Number Includes

- 7440 Pneumatic Wrench Driver
- DNC8 Nose Tip Connector
- DNUT8 Universal Nose Tip
- PW4601 Wrench Adapter

Dia.	Visu-Lok II Series	Complete Assembly	Pneumatic Pistol	Adapter Assembly	Complete Nose Adapter	Nose Tip Connector	Universal Nose Tip	Wrench Adapter
5/32"	PLT5000-5-()	DNR5AA		DNR5A	DN5-6	DNC5-6	DNUT5-6	PW4651
3/16"	PLT5000-6-()	DNR6AA	7440	DNR6A	DN5-6	DNC5-6	DNUT5-6	PW4001
1/4"	PLT5000-8-()	DNR8AA		DNR8A	DN8	DNC8	DNUT8	PW4601
5/16"	PLT5000-10-()	DNR10AA		DNR10A	DN10	DNC10	DNUT12	PW4121

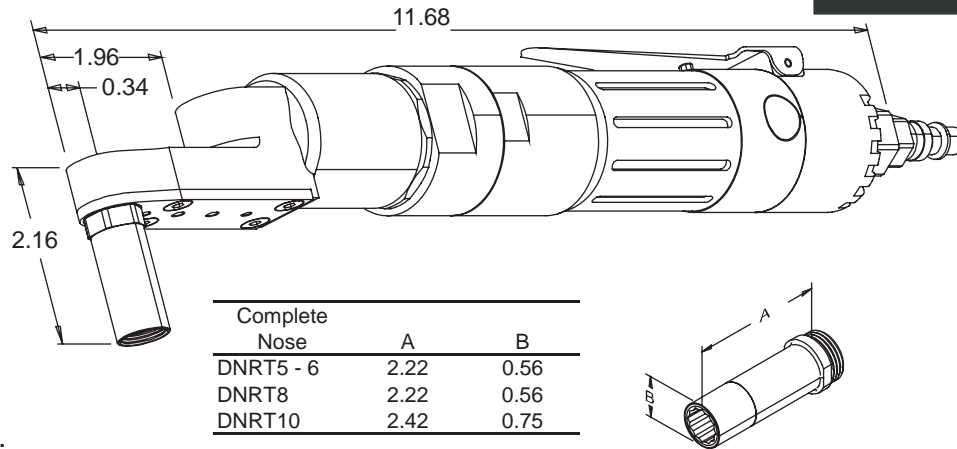


Technical Data

Operating Pressure	90 PSI
Torque Output	220 in-lbs
Motor Speed	500 rpm
Air Consumption (at free speed)	30 cfm
Horse Power Rating	0.5
Weight	3.5lb



Pneumatic Right Angle Torque Responsive Adapter Visu-Lok II[®]



How To Order:

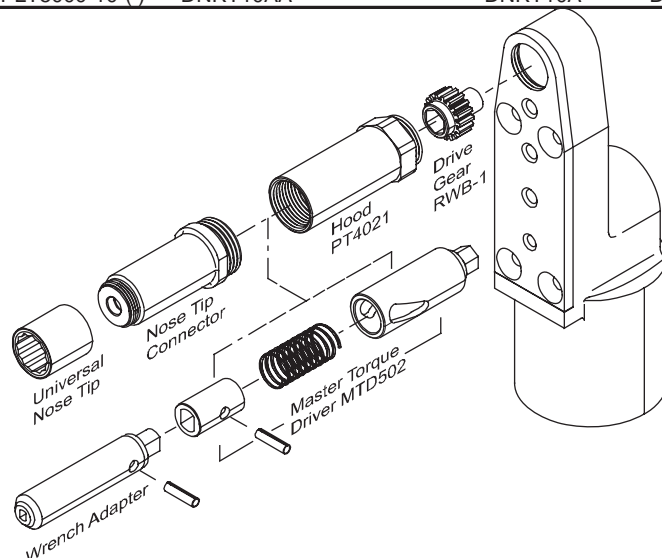
1. Select the diameter and match with the Table below
2. From the corresponding row select the complete assembly part number or the parts needed.

Example: DNRT5AA

Part Number Includes

- 7440M Pneumatic Wrench Driver
- DNCRT5-6 Nose Tip Connector
- DNUT5-6 Universal Nose Tip
- TD5651 Wrench Adapter

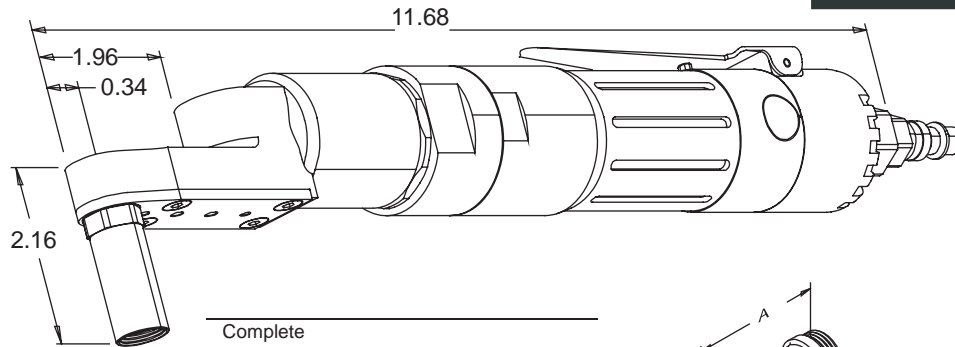
Dia.	Visu-Lok II Series	Complete Assembly	Pneumatic Pistol	Adapter Assembly	Complete Nose Adapter	Nose Tip Connector	Universal Nose Tip	Wrench Adapter
5/32"	PLT5000-5-()	DNRT5AA		DNRT5A	DNRT5-6	DNCRT5-6	DNUT5-6	TD5651
3/16"	PLT5000-6-()	DNRT6AA		DNRT6A	DNRT5-6	DNCRT5-6	DNUT5-6	TD5001
1/4"	PLT5000-8-()	DNRT8AA	7440M	DNRT8A	DNRT8	DNCRT8	DNUT8	TD5601
5/16"	PLT5000-10-()	DNRT10AA		DNRT10A	DNRT10	DNCRT10	DNUT12	TD5121



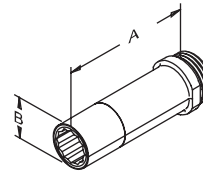
Technical Data	
Operating Pressure	90 PSI
Torque Output	220 in-lbs
Motor Speed	500 rpm
Air Consumption (at free speed)	30 cfm
Horse Power Rating	0.5
Weight	3.5lb



Pneumatic Right Angle w/ Integrated Socket Torque Responsive Adapter for Visu-Lok II[®]



Complete Nose	A	B
DNRPT5 - 6	1.33	0.56
DNRPT8	1.33	0.56
DNRPT10	1.53	0.75



How To Order:

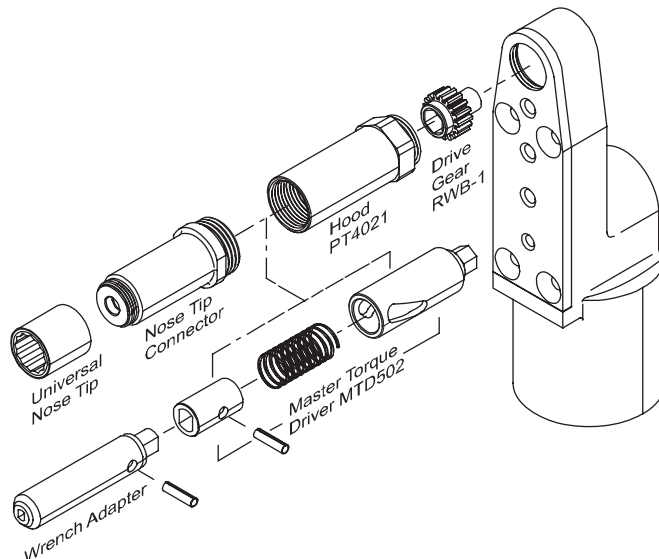
1. Select the diameter and match with the Table below
2. From the corresponding row select the complete assembly part number or the parts needed.

Example: DNRPT5AA

Part Number Includes

- 7440M Pneumatic Wrench Driver
- DNCRPT5-6 Nose Tip Connector
- DNUT5-6 Universal Nose Tip
- UPTRW-5 Complete Wrench/Driver
- UWT-5 Wrench Tip

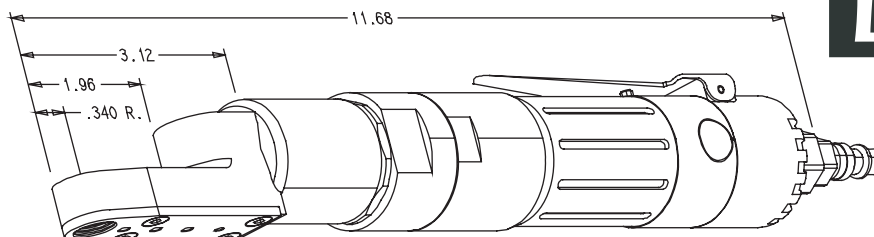
Dia.	Visu-Lok II Series	Complete Assembly	Pneumatic Pistol	Adapter Assembly	Complete Nose Adapter	Nose Tip Connector	Universal Nose Tip	Wrench Adapter	Wrench Tip
5/32"	PLT5000-5-()	DNRPT5AA	7440M	DNRPT5A	DNPT5-6	DNCRPT5-6	DNUT5-6	UPTRW-5	UWT-5
3/16"	PLT5000-6-()	DNRPT6AA		DNRPT6A	DNPT5-6	DNCRPT5-6	DNUT5-6	UPTRW-6	UWT-6
1/4"	PLT5000-8-()	DNRPT8AA		DNRPT8A	DNPT8	DNCRPT8	DNUT8	UPTRW-8	UWT-8
5/16"	PLT5000-10-()	DNRPT10AA		DNRPT10A	DNPT10	DNCRPT10	DNUT12	UPTRW-10	UWT-10



Technical Data	
Operating Pressure	90 PSI
Torque Output	220 in-lbs
Motor Speed	500 rpm
Air Consumption (at free speed)	30 cfm
Horse Power Rating	0.5
Weight	3.5lb



Pneumatic Right Angle Close Quarter Visu-Lok II[®]



Complete Nose	A	B
DNRC5 - 6	0.53	0.56
DNRC8	0.53	0.56
DNRC10	0.73	0.75



How To Order:

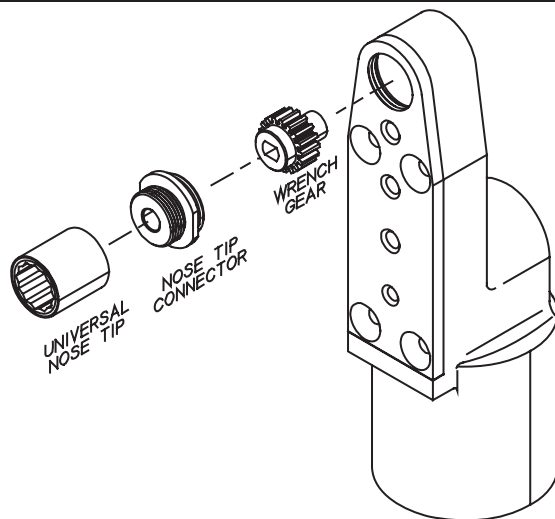
1. Select the diameter and match with the Table below
2. From the corresponding row select the complete assembly part number or the parts needed.

Example: DRNRC6-AA

Part Number Includes

- 7440C Pneumatic Wrench Driver
- DNRC5-6 Nose Tip Connector
- DNUT5-6 Universal Nose Tip
- RW5-1 Wrench Gear

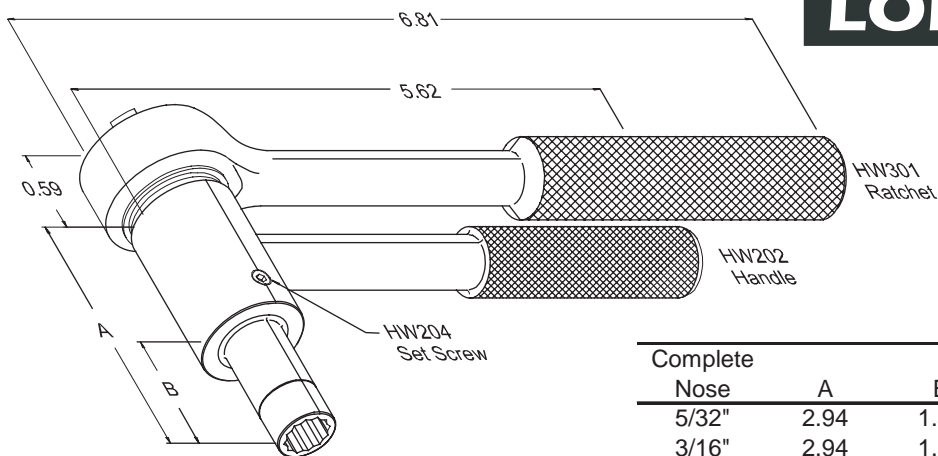
Dia.	Visu-Lok II Series	Complete Assembly	Pneumatic Pistol	Adapter Assembly	Complete Nose Adapter	Nose Tip Connector	Universal Nose Tip	Wrench Adapter
5/32"	PLT5000-5-()	DNRC5AA		DNRC5A	DNRC5-6	DNCR5-6	DNUT5-6	RW5-1
3/16"	PLT5000-6-()	DNRC6AA	7440C	DNRC6A	DNRC5-6	DNCR5-6	DNUT5-6	RW6-1
1/4"	PLT5000-8-()	DNRC8AA		DNRC8A	DNRC8	DNCR8	DNUT8	RW8-1
5/16"	PLT5000-10-()	DNRC10AA		DNRC10A	DNRC10	DNCR10	DNUT12	RW10-1



Technical Data	
Operating Pressure	90 PSI
Torque Output	220 in-lbs
Motor Speed	500 rpm
Air Consumption (at free speed)	30 cfm
Horse Power Rating	0.5
Weight	3.5lb



Ratchet Hand Tool for Visu-Lok II[®]



Complete			
Nose	A	B	C
5/32"	2.94	1.50	0.56
3/16"	2.94	1.50	0.56
7/32"	3.07	1.62	0.56
1/4"	3.07	1.62	0.56
5/16"	3.14	1.70	0.75
3/8"	3.16	1.72	0.75

How To Order:

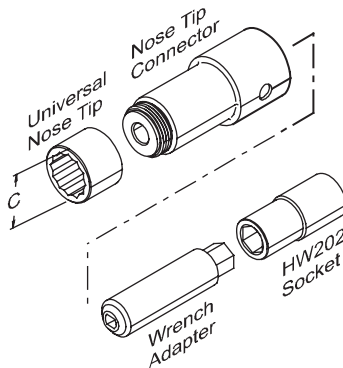
1. Select the diameter and match with the Table on this page.
2. From the corresponding row select the complete assembly part number or the parts needed.

Example: DNH5AA

Part Number Includes

- HW300 Ratchet Wrench
- HW202 Holder
- DNCH5-6 Nose Tip Connector
- DNUT5-6 Universal Nose Tip
- HW1651 Wrench Gear

Dia.	Visu-Lok II Series	Complete Assembly	Ratchet Wrench	Adapter Assembly	Complete Nose Adapter	Nose Tip Connector	Universal Nose Tip	Wrench Adapter
5/32"	PLT5000-5-()	DNH5AA		DNH5A	DNH5-6	DNCH5-6	DNUT5-6	HW1651
3/16"	PLT5000-6-()	DNH6AA		DNH6A	DNH5-6	DNCH5-6	DNUT5-6	HW2001
1/4"	PLT5000-8-()	DNH8AA	HW300	DNH8A	DNH8	DNCH8	DNUT8	HW2601
5/16"	PLT5000-10-()	DNH10AA		DNH10A	DNH10	DNCH10	DNUT12	HW3121
3/8"	PLT5000-12-()	DNH12AA		DNH12A	DNH12	DNCH12	DNUT12	HW3751

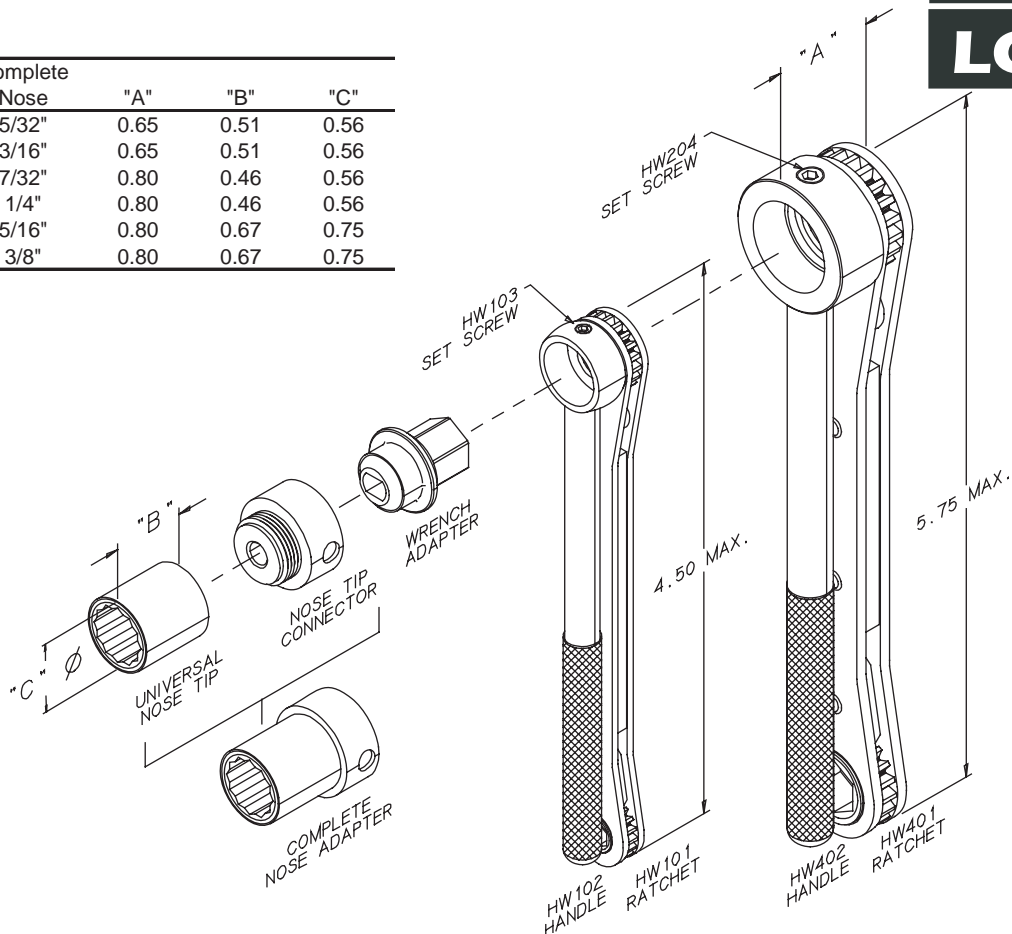




Ratchet Hand Tool Close Quarter for Visu-Lok II[®]



Complete Nose	"A"	"B"	"C"
5/32"	0.65	0.51	0.56
3/16"	0.65	0.51	0.56
7/32"	0.80	0.46	0.56
1/4"	0.80	0.46	0.56
5/16"	0.80	0.67	0.75
3/8"	0.80	0.67	0.75



How To Order:

1. Select the diameter and match with the Table on this page.
2. From the corresponding row select the complete assembly part number or the parts needed.

Example: DNHC5AA

Part Number Includes

- HW100 Ratchet Wrench
- HW102 Holder
- DNHC5-6 Nose Tip Connector
- DNUT5-6 Universal Nose Tip
- HW5 Wrench Gear

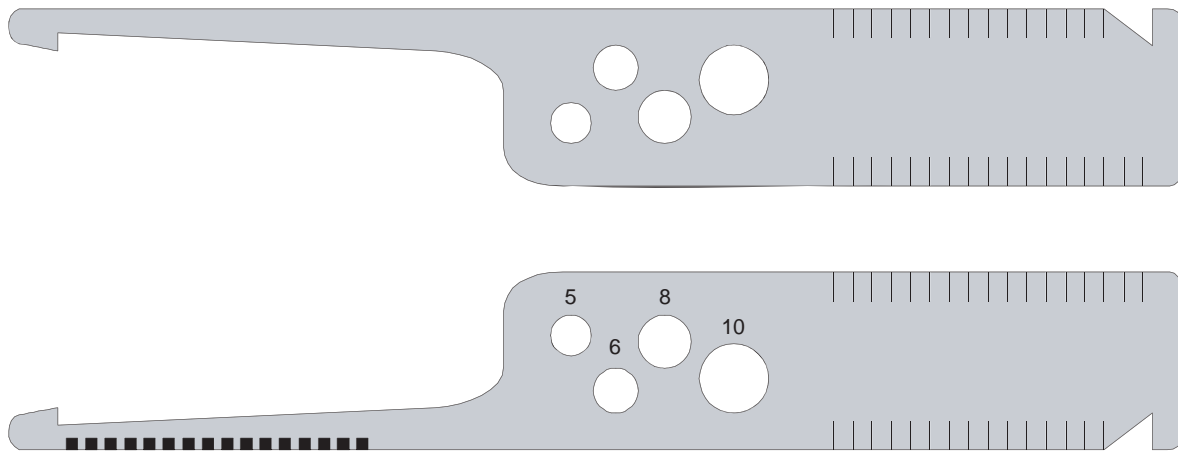
Dia.	Visu-Lok II Series	Complete Assembly	Pneumatic Adapter Pistol	Pneumatic Adapter Assembly	Complete Nose Adapter	Nose Tip Connector	Universal Nose Tip	Wrench Adapter
5/32"	PLT5000-5-(-)	DNHC5AA	HW 100	DNHC5A	DNHC5-6	DNCHC5-6	DNUT5-6	HW5
3/16"	PLT5000-6-(-)	DNHC6AA	HW 100	DNHC6A	DNHC5-6	DNCHC5-6	DNUT5-6	HW6
1/4"	PLT5000-8-(-)	DNHC8AA	HW 400	DNHC8A	DNHC8	DNCHC8	DNUT8	HW8
5/16"	PLT5000-10-(-)	DNHC10AA	HW 400	DNHC10A	DNHC12	DNCHC12	DNUT12	HW10
3/8"	PLT5000-12-(-)	DNHC12AA	HW 400	DNHC12A	DNHC12	DNCHC12	DNUT12	HW12



Visu-Lok II[®]
Grip Scales



Grip Scale Part #: LFVLG-1



Selection of Grip Length

In measuring hole depth take reading where the skin surface meets the number or line on gauge. If directly on a line use either the indicated grip or the next longer grip.

In cases where there a tapered sheet condition exists, determine grip length at the hole centerline. The taper must not exceed 7° to ensure the proper performance of the fastener.





Composi-Lok II

Blind Fastener Tools



Universal Nose Tip™ System for Installing Drive-Nut Type



Driver Model #	Universal Nose Tip	Nose Tip Connector	Wrench Adapter	Torque Driver
S540MTD / S540MTD-BF Pneumatic Pistol				
7440 - 90° Right Angle Driver				
7440M / 7440M-BF 90° Pneumatic Torque Responsive				
7440M / 7440M-BF Integrated Wrench / Torque Driver				
7440C Close Quarter 90° Right Angle				
HW200 / HW300 Standard Ratchet Hand Tool				
HW100 / HW400 Close Quarter Ratchet Hand Tool				

Universal Interchangeable Nose Tips

Installation tools have been simplified in the "DRIVE NUT" fastener system in both Visu-Lok II® and Composi-Lok II®

LOK-FAST has further simplified the tooling with UNIVERSAL NOSE TIP™. Now, for a given size range any nose tip may be interchangeable with any driver.

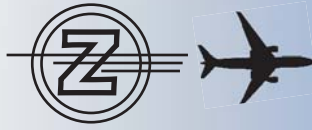
An installation tool consists of a driver and an adapter assembly. The adapter assembly is comprised of a nose adapter to engage the corebolt through rotation to clamp-up and break-off. In most cases, for a given driver, the LOK-FAST UNIVERSAL NOSE TIP™ SYSTEM uses only three complete nose adapters for all the fastener head styles, and for the complete range of sizes from 5/32" to 3/8".

Two Part Nose Adapter

The nose adapter is now a two piece design consisting of the Universal Nose Tip™ and the Nose Tip Connector™. The nose tip engages the fastener drivenut, and the nose tip is threaded onto the connector to form a complete installation tool. The two piece design allows interchanging of the nose tips among all driver configurations and further allows interchangeability between Visu-Lok II® and Composi-Lok II® installation tools. The nose tip may be removed with a standard allen wrench using clockwise rotation.

The pictorial chart on the preceding page is an illustration of the Universal Nose Tip™ System.

Universal Nose Tip™ is a Trademark of LOK-FAST, INC
Nose Tip™ Connector™ is a Trademark of LOK-FAST, INC



Drive-Nut Interchangeability

Dia.	Fastener	Pneumatic	Standard Right Angle	Torq. Resp. Right Angle	Close Qtr. Right Angle	Standard Hand Tool	Close Qtr. Hand Tool
-5	VLII / CLII						
-6	VLII / CLII						
-7	CLII only						
-8	VLII / CLII						
-9	CLII only						
-10	VLII / CLII						
-11	CLII only						
-12	VLII / CLII						

NOTE: VLII - represents Visu-Lok II
 CLII - represents Composi-Lok II



Composi-LokII® adapter assemblies may install Visu-Lok II®

Adapter assemblies identical for both Visu-Lok II® and Composi-Lok II®

Visu-Lok II® and Composi-Lok II® fasteners have certain common driving dimensions. The drivenuts are identical for both fasteners. In the -8, -10, and -12 diameter fasteners the wrench flats are common to both fastener types. In the -5 and -6 diameters, the wrench flats are not common to Visu-Lok II® and Composi-Lok II®. Therefore, wrench adapters used to install these fasteners are not interchangeable.

The larger blind side "footprint" of Composi-Lok II® is accomplished through the use of a longer sleeve and corebolt. The close quarter installation tools permit the corebolt to pass completely through the wrench. Therefore, in the -8, -10, and -12 diameters, close quarter installation is 100% interchangeable. In all other installation tools, the corebolt does not pass completely through the wrench. The wrench adapter (and consequently, the nose adapter) must be longer to install the Composi-Lok II®

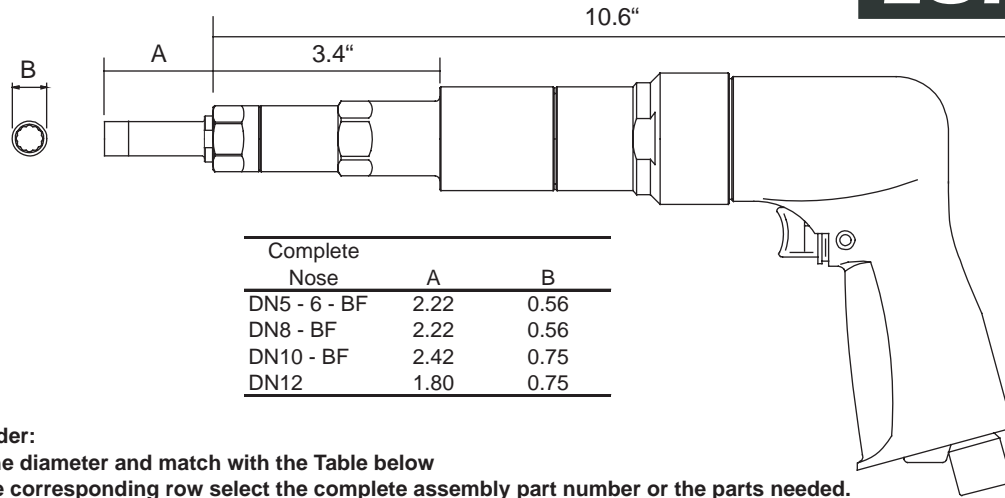
In the common wrench-flat diameters, the longer installation tooling (Composi-Lok II®) may be used to install the Visu-Lok II®, but the tooling for Visu-Lok II® may not be used for Composi-Lok II® installations.

If it is desired to standardize on one system of adapters for use with both types of fasteners, Lok-Fast provides a longer wrench adapter for the -5 and -6 Visu-Lok II® to be used with the Composi-Lok II® nose adapters.

The opposite chart illustrates the interchangeability. The two tooling systems are described in separate sections of this catalog. The new wrench adapters for Visu-Lok II® sizes -5 and -6 are contained only in the section on Visu-Lok II®. For these wrench adapters, selection of the corresponding Composi-Lok II® nose adapter is made by referring to the same page in the section on Composi-Lok tooling.



Pneumatic Pistol Driver Assembly for Composi-Lok II[®]



How To Order:

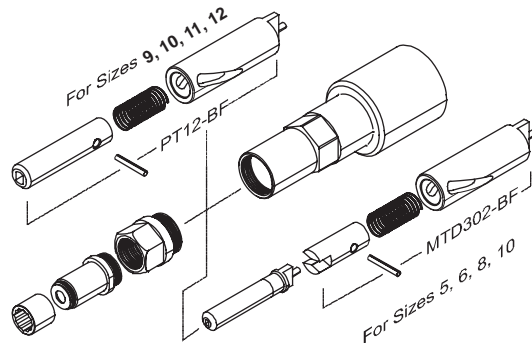
1. Select the diameter and match with the Table below
2. From the corresponding row select the complete assembly part number or the parts needed.

Example: DN8AA-BF

Part Number Includes

- S540MTD-BF Pneumatic Pistol Driver
- MTD302 Master Torque Driver
- DNC8-BF Nose Tip Connector
- DNUT8 Universal Nose Tip
- TD2601-BF Wrench Adapter

Dia.	Fastener Size	Complete Assembly	Adapter Assembly	Nose Adapter	Nose Tip Connector	Universal Nose Tip	Wrench Adapter
5/32"	5-()	DN5AA-BF	DN5A-BF	DN5-6-BF	DNC5-6-BF	DNUT5-6	TD1651-BF
3/16"	6-()	DN6AA-BF	DN6A-BF	DN5-6-BF	DNC5-6-BF	DNUT5-6	TD2001-BF
7/32"	7-()	DN7AA-BF	DN7A-BF	DN8-BF	DNC8-BF	DNUT8	TD7-BF
1/4"	8-()	DN8AA-BF	DN8A-BF	DN8-BF	DNC8-BF	DNUT8	TD2601-BF
9/32"	9-()	DN10AA-BF	DN10A-BF	DN10-BF	DNC10-BF	DNUT12	TD3121-BF
5/16"	10-()	DNPT10AA-BF	DNPT10A-BF	DNPT12	DNCPT12	DNUT12	PT10-BF
11/32"	11-()	DN12AA-BF	DNPT12A-BF	DNPT12	DNCPT12	DNUT12	PT12-BF
3/8"	12-()	DN12AA-BF	DNPT12A-BF	DNPT12	DNCPT12	DNUT12	PT12-BF

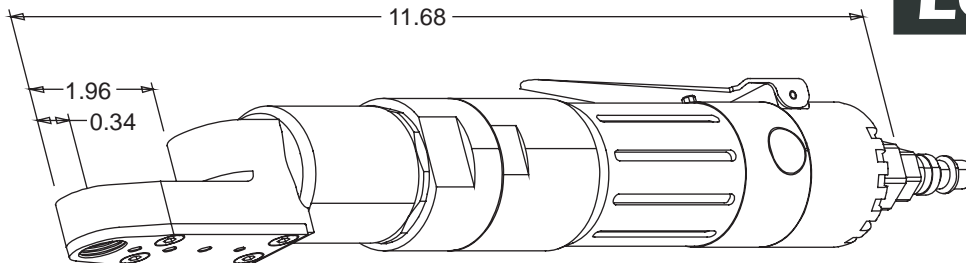


Technical Data

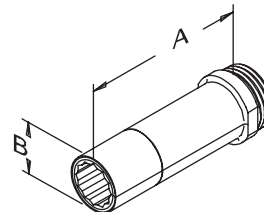
Operating Pressure	90 PSI
Torque Output	220 in-lbs
Motor Speed	540 rpm
Air Consumption (at free speed)	30 cfm
Horse Power Rating	0.5
Weight	3.5lb



Pneumatic Right Angle Composi-Lok II[®]



Complete Nose	A	B
DN5 - 6 - BF	2.22	0.56
DN8 - BF	2.22	0.56
DN10 - BF	2.42	0.75



How To Order:

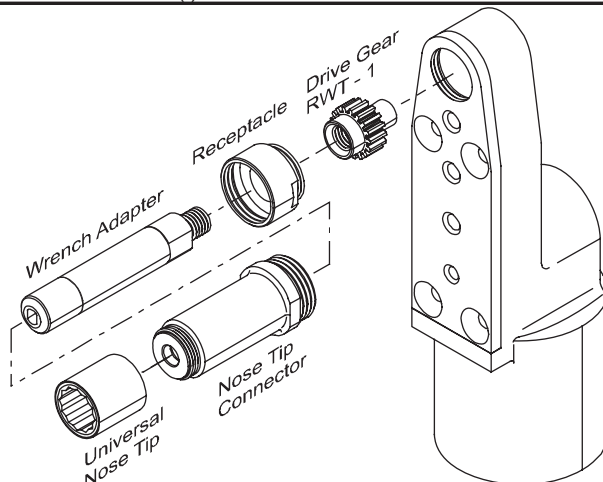
1. Select the diameter and match with the Table below
2. From the corresponding row select the complete assembly part number or the parts needed.

Example: DNR8AA-BF

Part Number Includes

- 7440 Pneumatic Wrench Driver
- DNC8-BF Nose Tip Connector
- DNUT8 Universal Nose Tip
- PW4602-BF Wrench Adapter

Dia.	Fastener Assembly	Complete Assembly	Adapter Assembly	Nose Adapter	Nose Tip Connector	Universal Nose Tip	Wrench Adapter
5/32"	5-()	DNR5AA-BF	DNR5A-BF	DN5-6-BF	DNC5-6-BF	DNUT5-6	PW4651-BF
3/16"	6-()	DNR6AA-BF	DNR6A-BF	DN5-6-BF	DNC5-6-BF	DNUT5-6	PW4001-BF
7/32"	7-()	DNR7AA-BF	DNR7A-BF	DN8-BF	DNC8-BF	DNUT8	PW4201-BF
1/4"	8-()	DNR8AA-BF	DNR8A-BF	DN8-BF	DNC8-BF	DNUT8	PW4601-BF
9/32"	9-()	DNR10AA-BF	DNR10A-BF	DN10-BF	DNC10-BF	DNUT12	PW4121-BF
5/16"	10-()	DNR10AA-BF	DNR10A-BF	DN10-BF	DNC10-BF	DNUT12	PW4121-BF

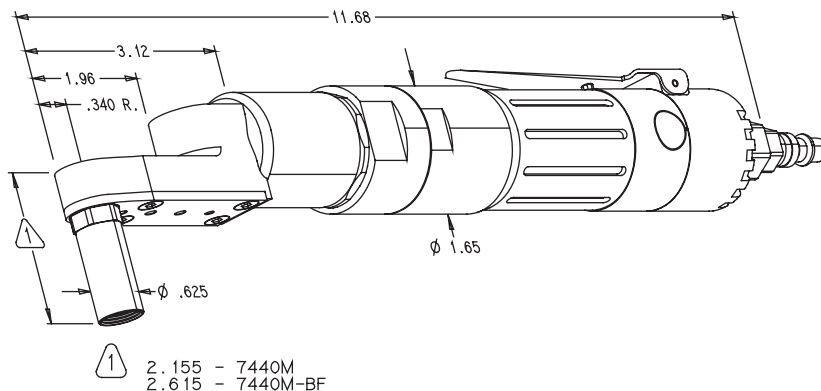


Technical Data

Operating Pressure	90 PSI
Torque Output	220 in-lbs
Motor Speed	500 rpm
Air Consumption (at free speed)	30 cfm
Horse Power Rating	0.5
Weight	3.5lb



Pneumatic Right Angle Torque Responsive Adapter Assemblies for Composi-Lok II[®]



Complete Nose	"A"	"B"
DNRT5 - 6 - BF	2.22	0.56
DNRT8 - BF	2.22	0.56
DNRT10 - BF	2.42	0.75

How To Order:

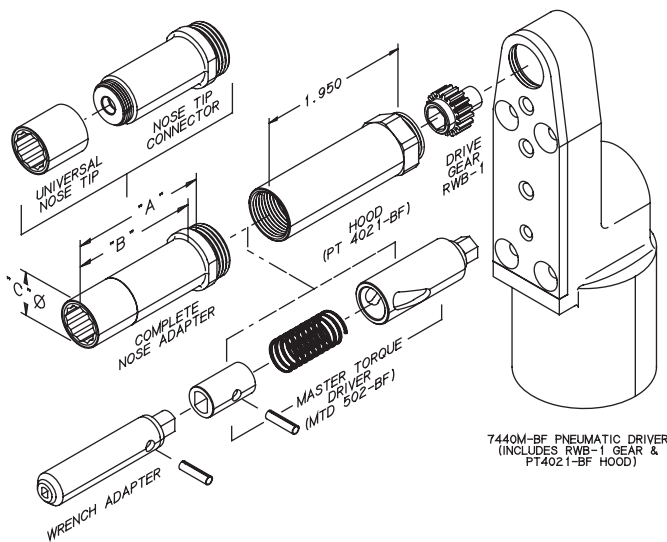
1. Select the diameter and match with the Table below
2. From the corresponding row select the complete assembly part number or the parts needed.

Example: DNRT7AA-BF

Part Number Includes

- 7440M-BF Pneumatic Wrench Driver
- DNCRT8-BF Nose Tip Connector
- DNUT5-6 Universal Nose Tip
- TD5201-BF Wrench Adapter

Dia.	Fastener Size	Complete Assembly	Adapter Assembly	Nose Adapter	Nose Tip Connector	Universal Nose Tip	Wrench Adapter
5/32"	5-()	DNRT5AA-BF	DNRT5A-BF	DNRT5-6-BF	DNCRT5-6-BF	DNUT5-6	TD5651-BF
3/16"	6-()	DNRT6AA-BF	DNRT6A-BF	DNRT5-6-BF	DNCRT5-6-BF	DNUT5-6	TD5001-BF
7/32"	7-()	DNRT7AA-BF	DNRT7A-BF	DNRT8-BF	DNCRT8-BF	DNUT8	TD5201-BF
1/4"	8-()	DNRT8AA-BF	DNRT8A-BF	DNRT8-BF	DNCRT8-BF	DNUT8	TD5601-BF
9/32"	9-()	DNRT10AA-BF	DNRT10A-BF	DNRT10-BF	DNCRT10-BF	DNUT12	TD5121-BF
5/16"	10-()	DNRT10AA-BF	DNRT10A-BF	DNRT10-BF	DNCRT10-BF	DNUT12	TD5121-BF



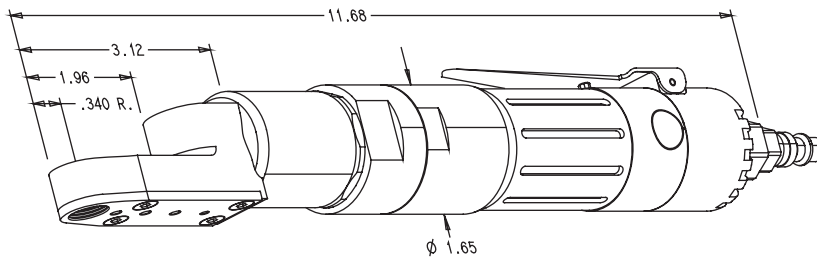
7440M-BF PNEUMATIC DRIVER (INCLUDES RWB-1 GEAR & PT402.1-BF HOOD)

Technical Data

Operating Pressure	90 PSI
Torque Output	220 in-lbs
Motor Speed	500 rpm
Air Consumption	30 cfm
(at free speed)	
Horse Power Rating	0.5
Weight	3.5lb



Pneumatic Right Angle Torque Responsive with Integrated Wrench/Torque Driver for Composi-Lok II[®]



Complete Nose	"A"	"B"
DNRPT5 - 6 - BF	1.33	0.56
DNRPT8-BF	1.33	0.56
DNRPT10-BF	1.53	0.75

How To Order:

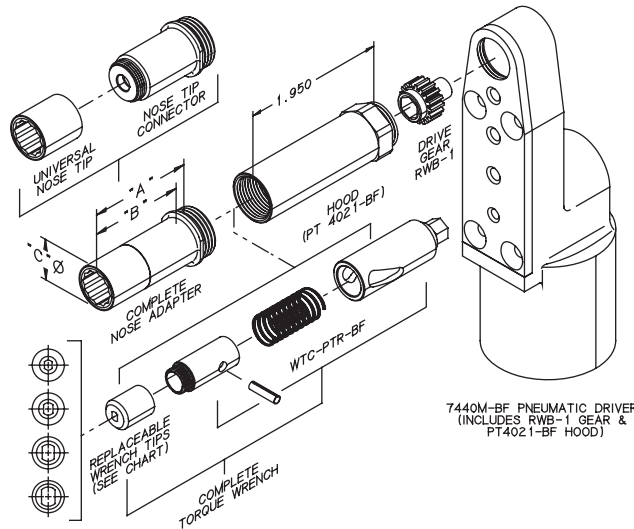
1. Select the diameter and match with the Table below
2. From the corresponding row select the complete assembly part number or the parts needed.

Example: DNRPT10AA-BF

Part Number Includes

- 7440M-BF Pneumatic Wrench Driver
- DNRPT10-BF Nose Tip Connector
- DNUT12 Universal Nose Tip
- UPTRW-10-BF Complete Wrench/Driver
- UWT-10 Wrench Tip

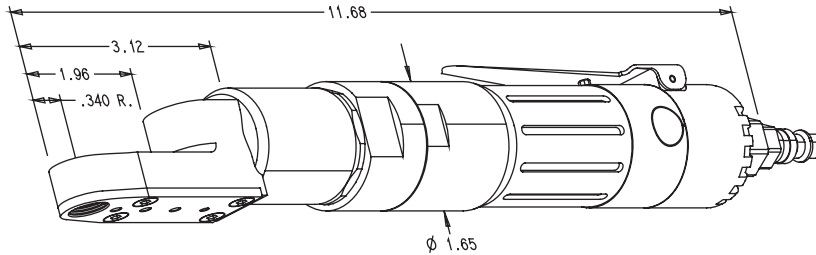
Dia.	Fastener Size	Complete Assembly	Adapter Assembly	Nose Adapter	Nose Tip Connector	Universal Nose Tip	Wrench Adapter	Wrench Tip
5/32"	5-()	DNRPT5AA-BF	DNRPT5A-BF	DNRPT5-6-BF	DNCRPT5-6-BF	DNUT5-6	UPTRW-5-BF	UWT-5-BF
3/16"	6-()	DNRPT6AA-BF	DNRPT6A-BF	DNRPT5-6-BF	DNCRPT5-6-BF	DNUT5-6	UPTRW-6-BF	UWT-6-BF
7/32"	7-()	DNRPT7AA-BF	DNRPT7A-BF	DNRPT8-BF	DNCRPT8-BF	DNUT8	UPTRW--7-BF	UWT-7-BF
1/4"	8-()	DNRPT8AA-BF	DNRPT8A-BF	DNRPT8-BF	DNCRPT8-BF	DNUT8	UPTRW-8-BF	UWT-8-BF
5/16"	10-()	DNRPT10AA-BF	DNRPT10A-BF	DNRPT10-BF	DNCRPT10-BF	DNUT12	UPTRW-10-BF	UWT-10-BF



Technical Data	
Operating Pressure	90 PSI
Torque Output	220 in-lbs
Motor Speed	500 rpm
Air Consumption	30 cfm
(at free speed)	
Horse Power Rating	0.5
Weight	3.5lb



Pneumatic Right Angle Close Quarter Driver Assemblies for Composi-Lok II[®]



Complete Nose	"A"	"B"
DNRC5 - 6 - BF	0.53	0.56
DNRC8-BF	0.53	0.56
DNRC10-BF	0.73	0.75

How To Order:

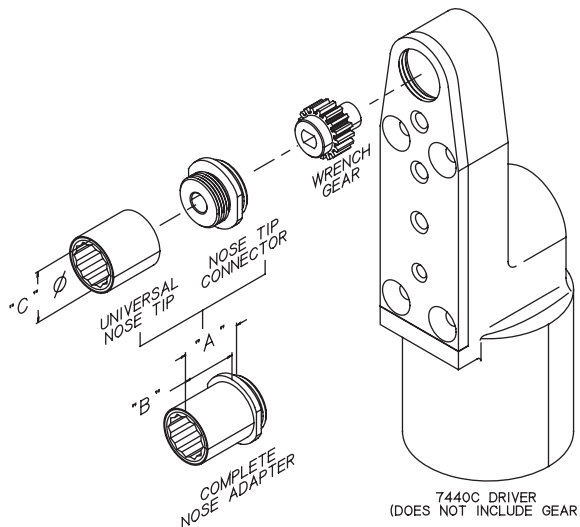
1. Select the diameter and match with the Table below
2. From the corresponding row select the complete assembly part number or the parts needed.

Example: DNRC5AA-BF

Part Number Includes

- 7440C Pneumatic Wrench Driver
- DNCR5-6 Nose Tip Connector
- DNUT5-6 Universal Nose Tip
- RW5-1-BF Wrench Gear

Dia.	Fastener Size	Complete Assembly	Adapter Assembly	Nose Adapter	Nose Tip Connector	Universal Nose Tip	Wrench Adapter
5/32"	5-()	DNRC5AA-BF	DNRC5A-BF	DNRC5-6	DNCRC5-6	DNUT5-6	RW5-1-BF
3/16"	6-()	DNRC6AA-BF	DNRC6A-BF	DNRC5-6	DNCRC5-6	DNUT5-6	RW6-1-BF
7/32"	7-()	DNRC7AA-BF	DNRC7A-BF	DNRC8	DNCRC-8	DNUT8	RW7-1-BF
1/4"	8-()	DNRC8AA-BF	DNRC8A	DNRC8	DNCRC-8	DNUT8	RW8-1
9/32"	9-()	DNRC10AA	DNRC10A	DNRC10	DNCRC-10	DNUT12	RW10-1
5/16"	10-()	DNRC10AA	DNRC10A	DNRC10	DNCRC-10	DNUT12	RW10-1



Technical Data

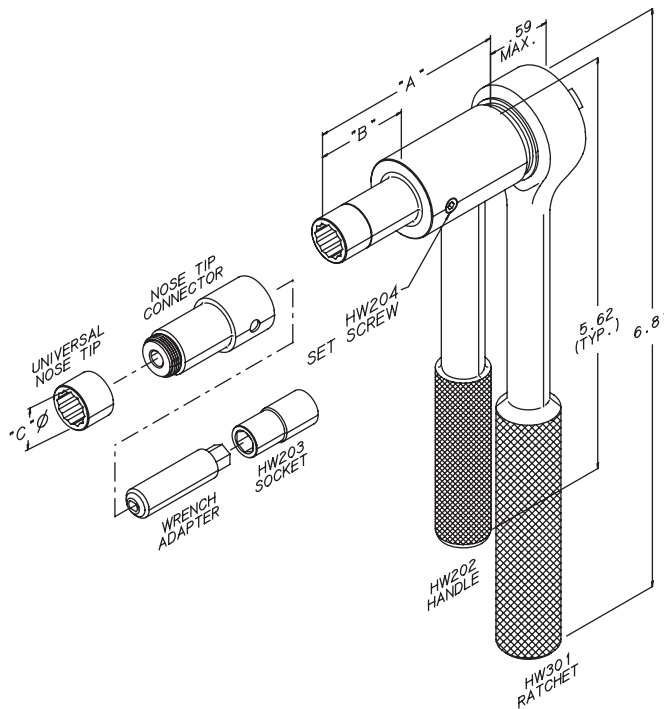
Operating Pressure	90 PSI
Torque Output	220 in-lbs
Motor Speed	500 rpm
Air Consumption (at free speed)	30 cfm
Horse Power Rating	0.5
Weight	3.5lb



Standard Ratchet Hand Tool Adapter Assembly for Composi-Lok II[®]



Nose	"A"	"B"
5/32"	2.94	0.56
3/16"	2.94	0.56
7/32"	3.07	0.56
1/4"	3.07	0.56
5/16"	3.14	0.75
3/8"	3.16	0.75



How To Order:

1. Select the diameter and match with the Table on this page.
2. From the corresponding row select the complete assembly part number or the parts needed.

Example: DNH5AA-BF

Part Number Includes

- HW301 Ratchet Wrench
- HW202 Holder
- DNCH5-6-BF Nose Tip Connector
- DNUT5-6 Universal Nose Tip
- HW1651-BF Wrench Gear

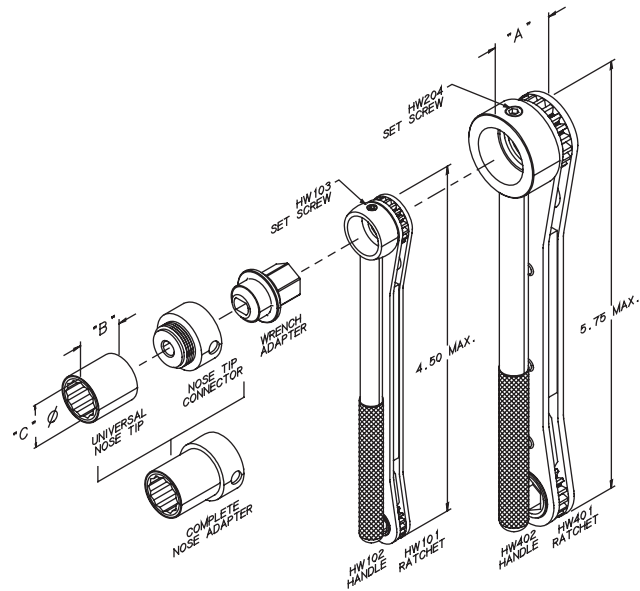
Dia.	Fastener Size	Complete Assembly	Adapter Assembly	Nose Adapter	Nose Tip Connector	Universal Nose Tip	Wrench Adapter
5/32"	5-()	DNH5AA-BF	DNH5A-BF	DNH5-6-BF	DNCH5-6-BF	DNUT5-6	HW1651-BF
3/16"	6-()	DNH6AA-BF	DNH6A-BF	DNH5-6-BF	DNCH5-6-BF	DNUT5-6	HW2001-BF
7/32"	7-()	DNH7AA-BF	DNH7A-BF	DNH8-BF	DNCH8-BF	DNUT8	HW2201-BF
1/4"	8-()	DNH8AA-BF	DNH8A-BF	DNH8-BF	DNCH8-BF	DNUT8	HW2601-BF
9/32"	9-()	DNH10AA-BF	DNH10A-BF	DNH12-BF	DNCH12-BF	DNUT12	HW3121-BF
5/16"	10-()	DNH10AA-BF	DNH10A-BF	DNH12-BF	DNCH12-BF	DNUT12	HW3121-BF
11/32"	11-()	DNH12AA-BF	DNH12A-BF	DNH12-BF	DNCH12-BF	DNUT12	HW3751-BF
3/8"	12-()	DNH12AA-BF	DNH12A-BF	DNH12-BF	DNCH12-BF	DNUT12	HW3751-BF



**Close Quarter Ratchet Hand Tool
 Adapter Assemblies for Composi-Lok II[®]**



Nose	"A"	"B"
DNHC5-6	0.65	0.56
DNHC8	0.80	0.56
DNHC12	0.80	0.75



How To Order:

1. Select the diameter and match with the Table on this page.
2. From the corresponding row select the complete assembly part number or the parts needed.

Example: DNHC5AA-BF

Part Number Includes

- HW101 Ratchet Wrench
- HW102 Holder
- DNHC5-6 Nose Tip Connector
- DNUT5-6 Universal Nose Tip
- HW5-BF Wrench Gear

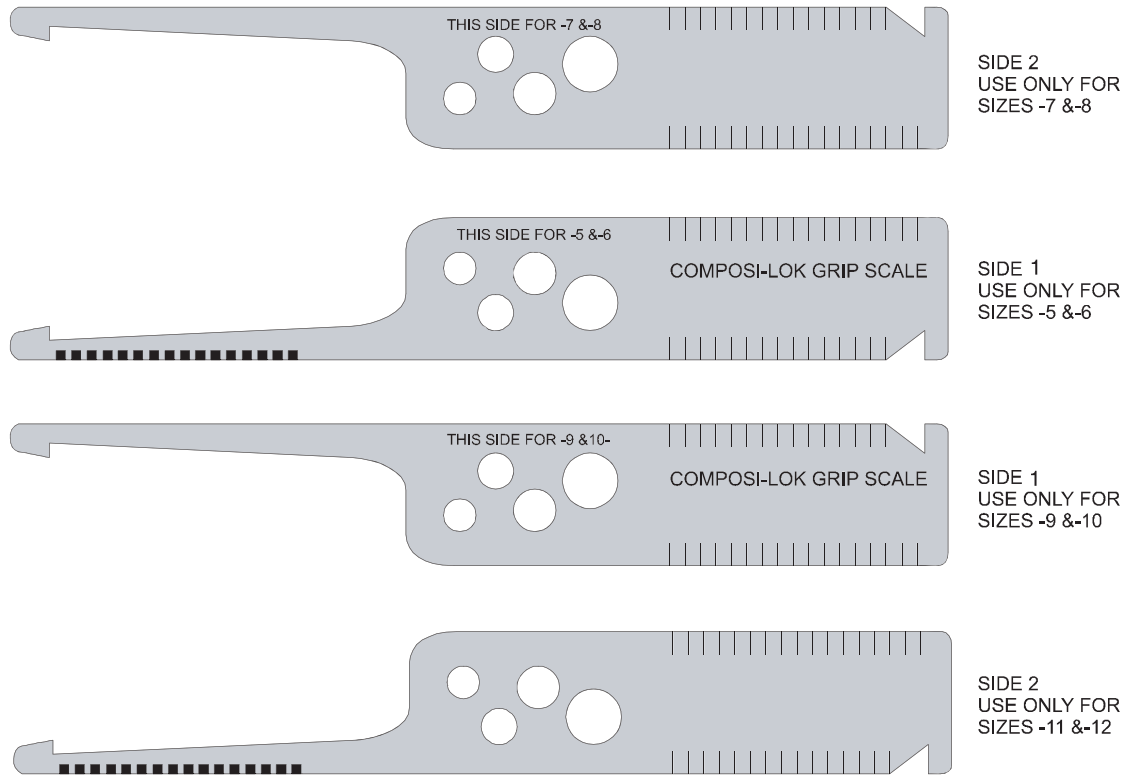
Dia.	Fastener Size	Complete Assembly	Ratchet Driver	Adapter Assembly	Nose Adapter	Nose Tip Connector	Universal Nose Tip	Wrench Adapter
5/32"	5-()	DNHC5AA-BF	HW100	DNHC5A-BF	DNHC5-6	DNCHC5-6	DNUT5-6	HW5-BF
3/16"	6-()	DNHC6AA-BF	HW100	DNHC6A-BF	DNHC5-6	DNCHC5-6	DNUT5-6	HW6-BF
7/32"	7-()	DNHC7AA-BF	HW400	DNHC7A-BF	DNHC8	DNCHC8	DNUT8	HW7-BF
1/4"	8-()	DNHC8AA	HW400	DNHC8A	DNHC8	DNCHC8	DNUT8	HW8
9/32"	9-()	DNHC10AA	HW400	DNHC10A	DNHC12	DNCHC12	DNUT12	HW10
5/16"	10-()	DNHC10AA	HW400	DNHC10A	DNHC12	DNCHC12	DNUT12	HW10
11/32"	11-()	DNHC12AA	HW400	DNHC12A	DNHC12	DNCHC12	DNUT12	HW12
3/8"	12-()	DNHC12AA	HW400	DNHC12A	DNHC12	DNCHC12	DNUT12	HW12



**Grip Scales for
 Composi-Lok[®] and Composi-Lok II[®]
 Fasteners**



Grip Scale Part #: LFCLG-1 & LFCLG-2



Selection of Grip Length

In measuring hole depth take reading where the skin surface meets the number or line on gauge. If directly on a line use either the indicated grip or the next longer grip.

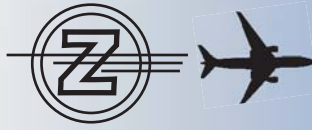
In cases where there a tapered sheet condition exists, determine grip length at the hole centerline. The taper must not exceed 7° to ensure the proper performance of the fastener.





Jo-Bolts Kits

Blind Fastener Tools



4000KIT

VISU-LOK RATCHET HAND TOOL KIT



INSTRUCTIONS

1. Determine the type (Flush, Protruding, Millable) and size of the fastener being used.
2. Use the right combination of Nose and Wrench Driver.

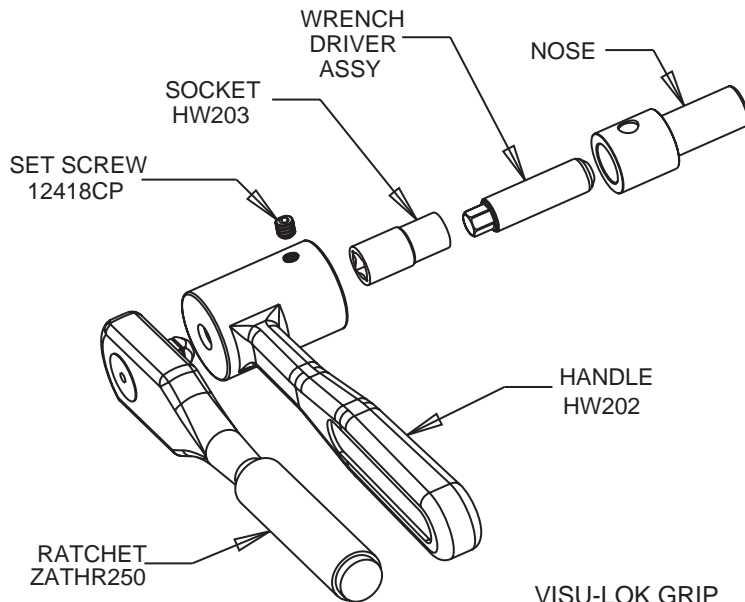
Example:

fastener: Type Flush size 3/16" (- 6) use:

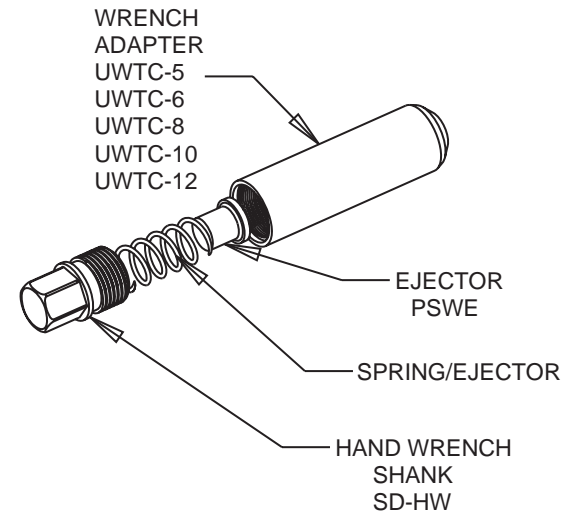
Nose: HW2002

Wrench Driver Assy: HW2001

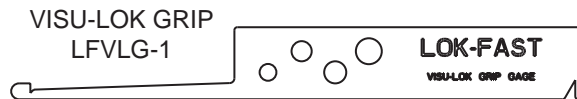
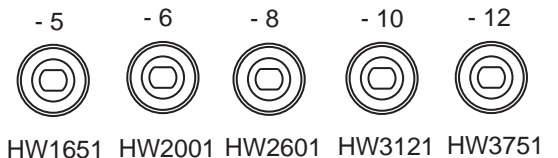
3. Insert Wrench Driver Assy into socket and Nose and secure with Set Screw.



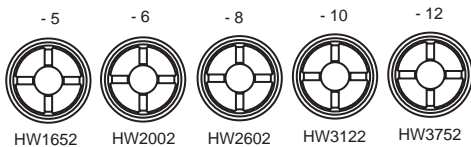
WRENCH DRIVERS ASSY.



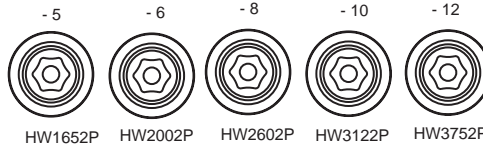
WRENCH DRIVERS ASSY. & SIZE



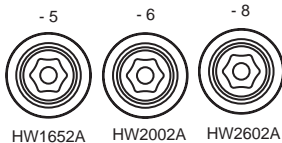
FLUSH TYPE NOSE



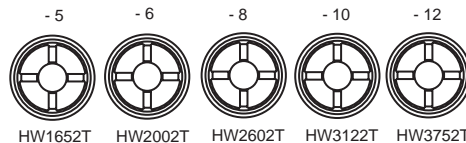
PROTRUDING TYPE NOSE



MILLABLE TYPE NOSE



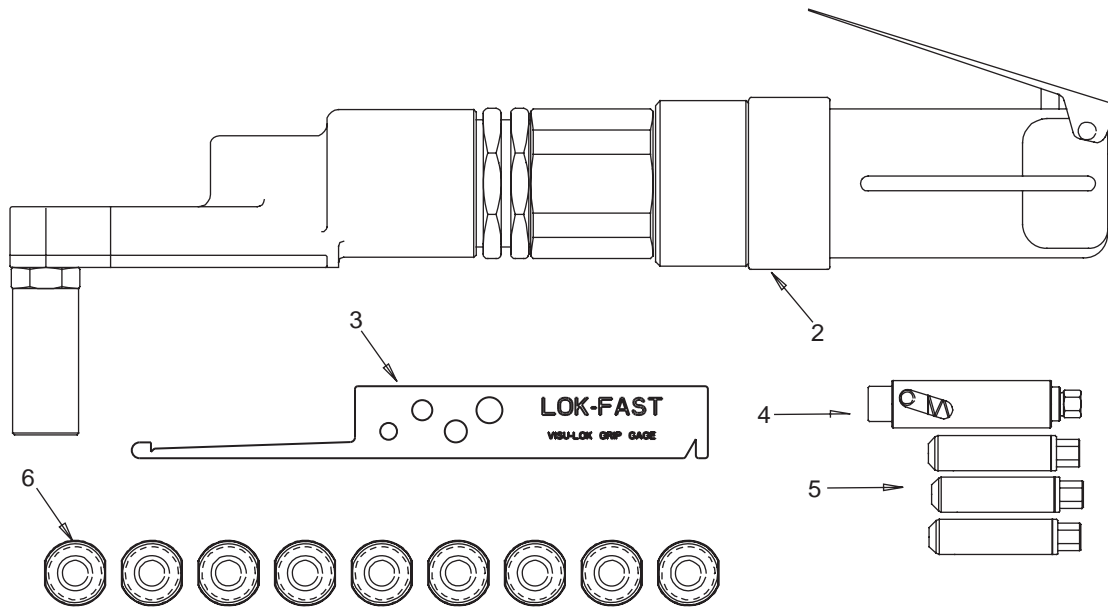
REDUCED FLUSH TYPE NOSE



Fastener Driver	Dia.
-5	5/32
-6	3/16
-8	1/4
-10	5/16
-12	3/8

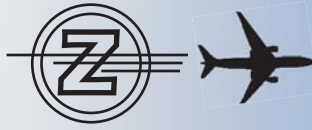


4060 Kit
Composi-Lok Right Angle
Master Torque Driver Assembly



Item	Part #	Description
1	4020-4	Tool Box
2	7440M-BF	Complete Driver Assy.l
3	LFCLG-1	Composi-Lok Grip Gauge
4	MTD502-BF	Master Torque Driver
5	TD5651-BF	Fastener Driver -5
	TD5001-BF	Fastener Driver -6
	TD5601-BF	Fastener Driver -8
6	TD5652T-BF	Reduced Flush Nose -5

Item	Part #	Description
6	TD5652P-BF	Protruding Nose 5
	TD5652-BF	Flush -5
	TD5002T-BF	Reduced Flush Nose -6
	TD5002P-BF	Protruding Nose -6
	TD5002-BF	Flush Nose -6
	TD5602T-BF	Reduced Flush Nose -8
	TD5602P-BF	Protruding Nose -8
	TD5602-BF	Flush Nose -8



4070KIT

VISU-LOK RIGHT ANGLE TORQUE RESPONSIVE KIT



INSTRUCTIONS

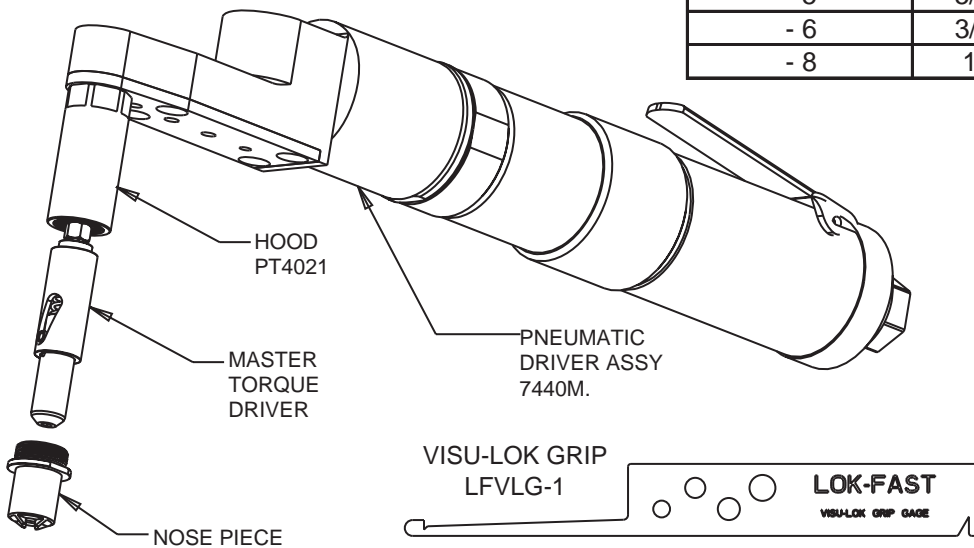
1. Determine the type (Flush, Protruding, Millable, Reduced Flush) and size of the fastener being used.
2. Use the right combination of Nose and Master Torque Driver.

Example:

fastener: Type Flush size 3/16" (- 6) use:
 Nose: PT4002
 Master Torque Driver Assy: PT4001

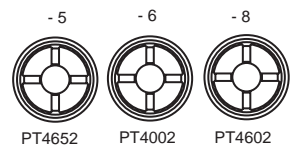
3. Insert Master Torque Driver Assy into hood and screw on Nose.

Fastener Driver	Dia.
- 5	5/32
- 6	3/16
- 8	1/4

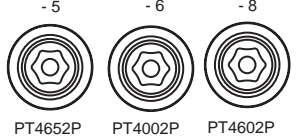


NOSE PIECES

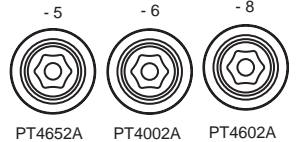
FLUSH TYPE NOSE



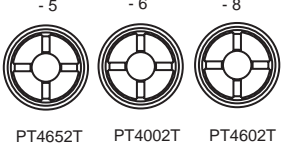
PROTRUDING TYPE NOSE



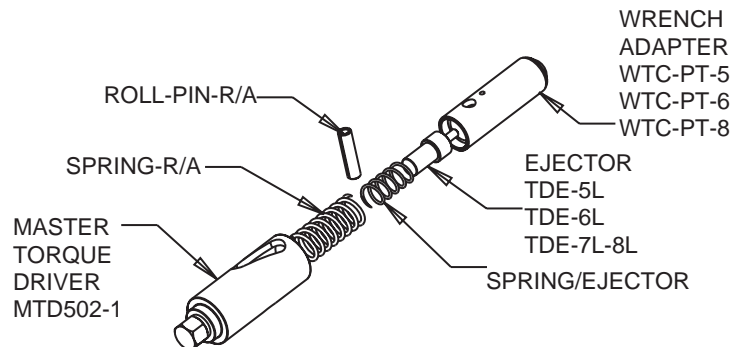
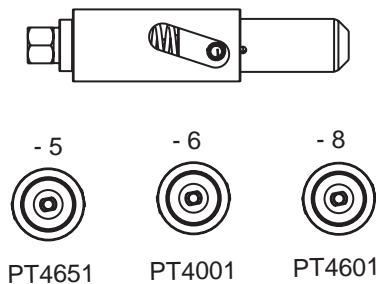
MILLABLE TYPE NOSE

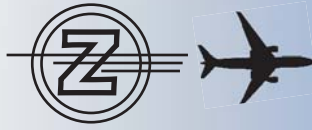


REDUCED FLUSH TYPE NOSE

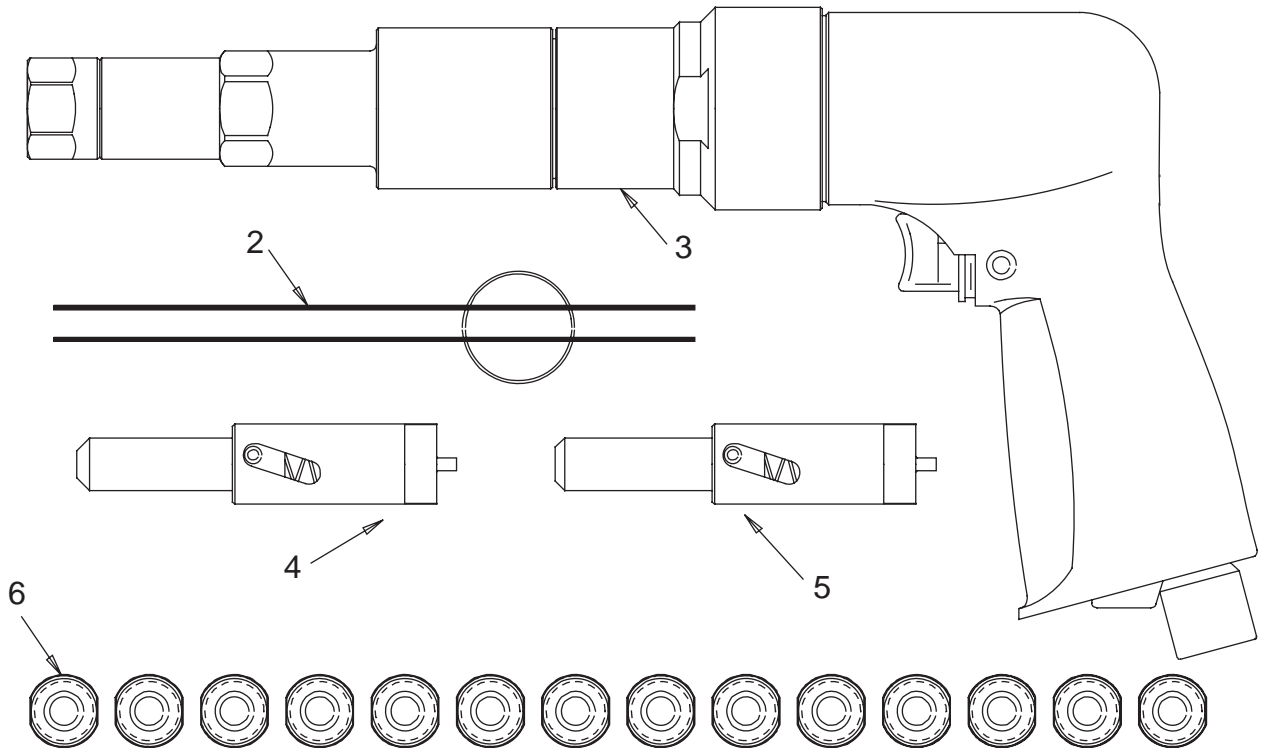


MASTER TORQUE DRIVERS ASSY & SIZE



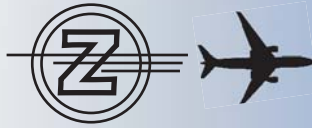


4080 KIT
Composi-Lok[®] Pistol
Master Torque Driver



Item	Part #	Description
1	4020-4	Tool Box
2	S540MTD-BF	Ratchet Hand Tool
3	LFCLG-1	Composi-Lok Grip Gauge
	LFCLG-2	Composi-Lok Grip Gauge
4	PT10-BF	Fastener Driver -10
5	PT12-BF	Fastener Driver -12
6	TD1651-BF	Fastener Driver -5
	TD2001-BF	Fastener Driver -6
	TD2601-BF	Fastener Driver -8
	PW3652T-BF	Reduced Flush Nose - 5
	PW3652P-BF	Protruding Nose -5
	PW3652-BF	Flush Nose -5

Item	Part #	Description
6	PW3002T-BF	Reduced Flush Nose -6
	PW3002P-BF	Protruding Nose -6
	PW3002-BF	Flush Nose -6
	PW3602T-BF	Reduced Flush Nose -8
	PW3602P-BF	Protruding Nose -8
	PW3602-BF	Flush Nose -8
	PT10FT-BF	Reduced Flush Nose -10
	PT10P-BF	Protruding Nose -10
	PT10F-BF	Flush Nose -10
	PT12FT-BF	Reduced Flush Nose -12
	PT12P-BF	Protruding Nose -12
	PT12F-BF	Flush Nose -12



4090KIT

VISU-LOK PISTOL MASTER TORQUE DRIVER



INSTRUCTIONS

1. Determine the type (Flush, Protruding, Millable) and size of the fastener being used.

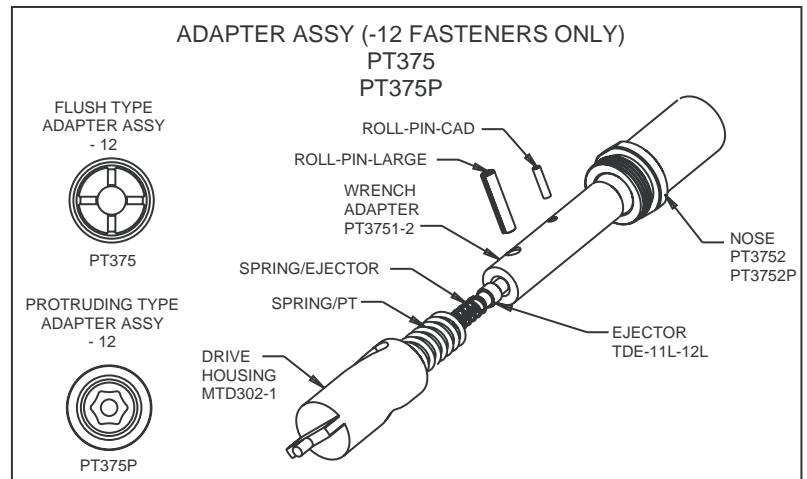
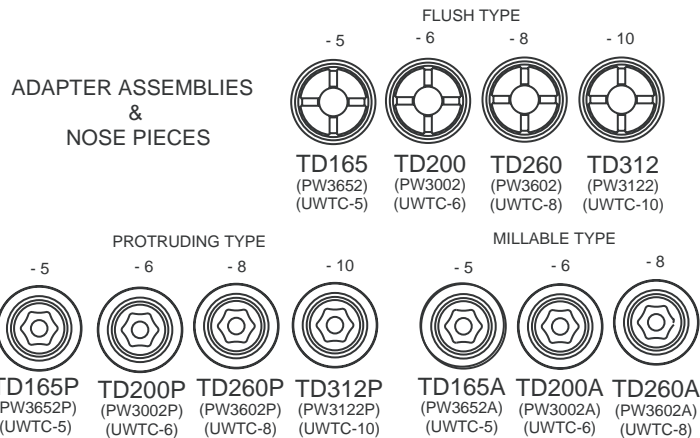
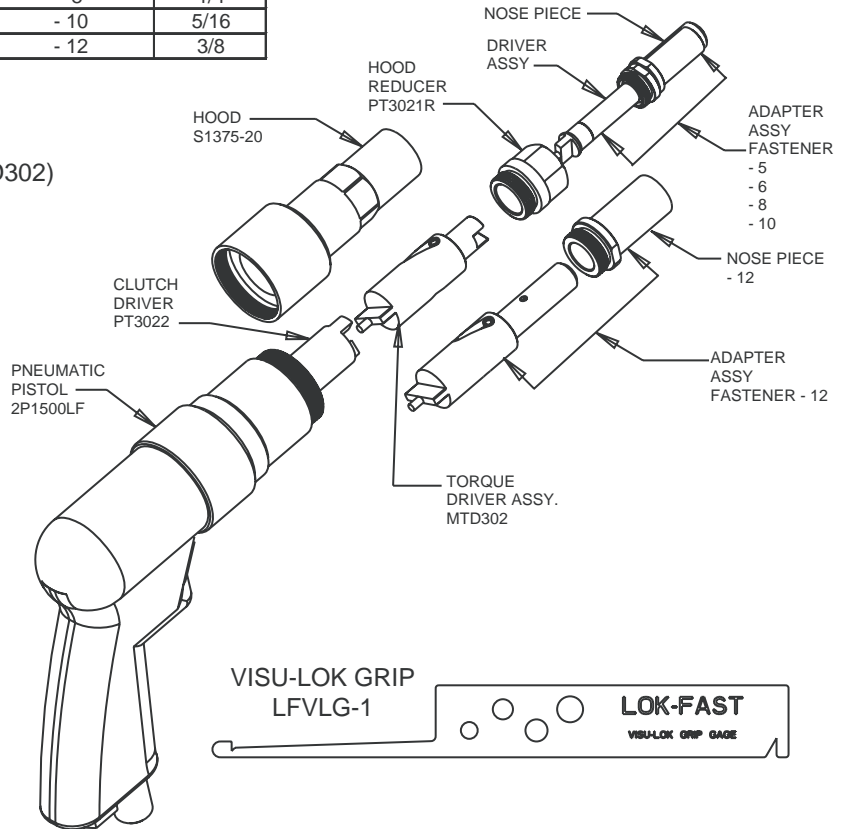
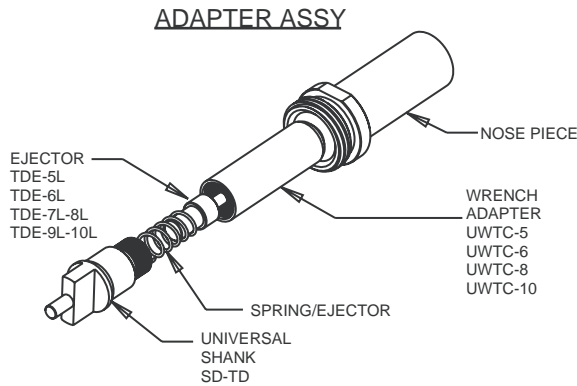
2. Use the right Adapter Assy.

Example:

fastener: Type Flush size 3/16" (- 6) use:
Adapter Assy: TD200

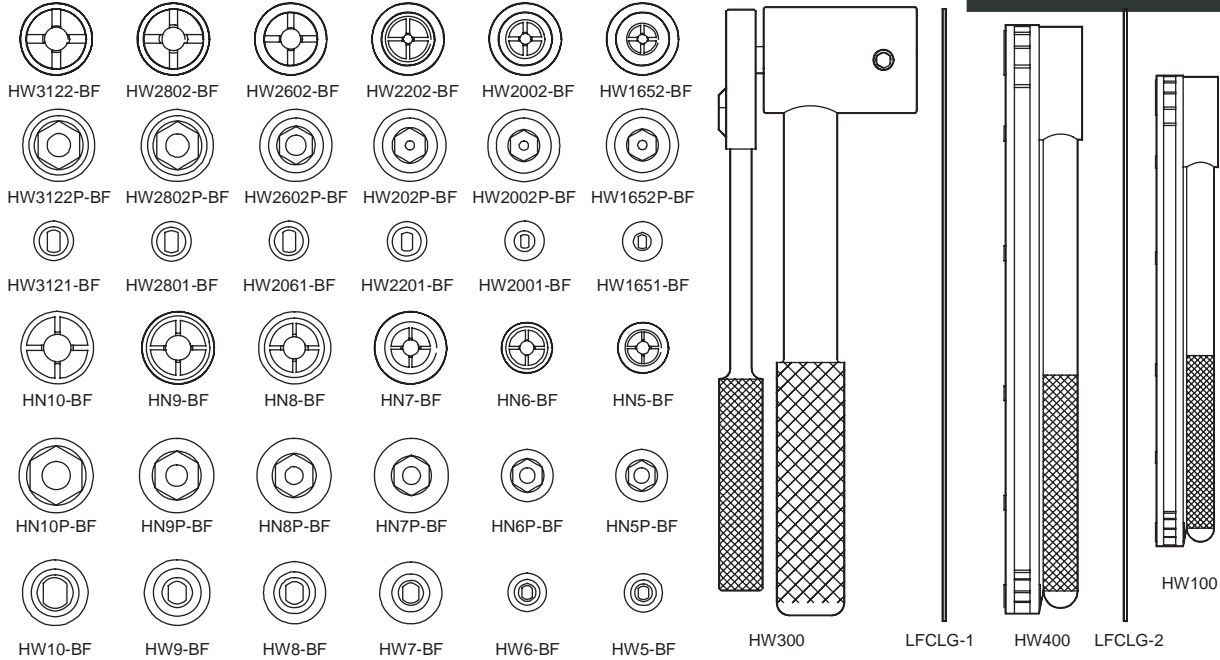
3. Insert Driver Assy into slot on Torque Driver Assy (MTD302) screw on Hood Reducer and screw on Nose piece.
4. For size 12, remove torque driver assy., (MTD302) and Hood Reducer, (PT3021R), insert Adapter Assy., (PT375 or PT375P) into Clutch Driver, (PT3022) and Nose piece into Hood, (S1375-20).

Fastener Driver	Dia.
- 5	5/32
- 6	3/16
- 8	1/4
- 10	5/16
- 12	3/8

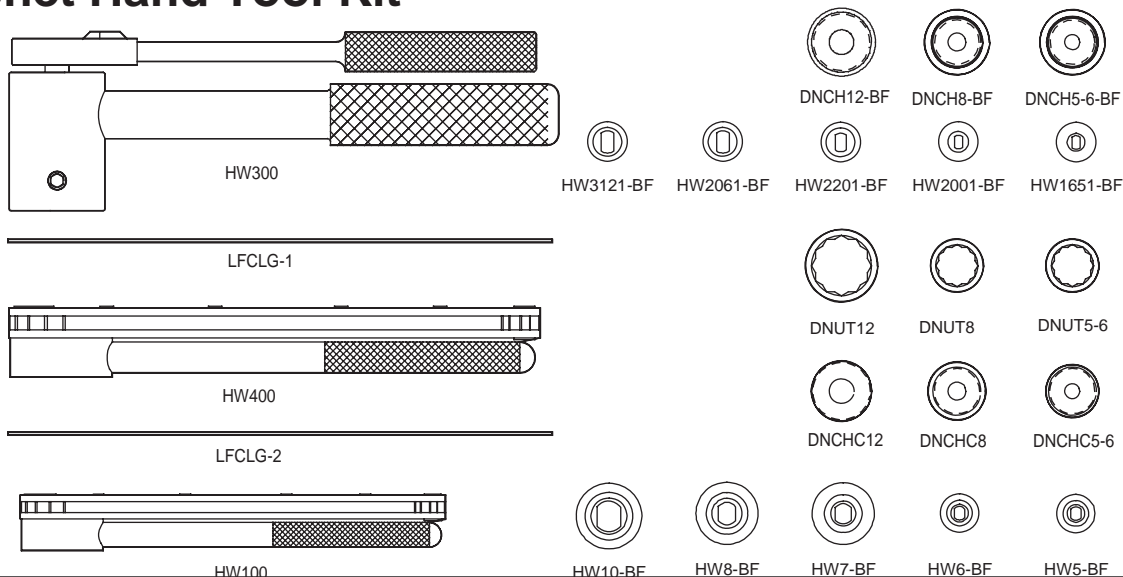




CLHK-101
Composi-Lok
Ratchet Hand Tool Kit



CLIIHK-101
Composi-LokII
Ratchet Hand Tool Kit





VLHK-101

VISU-LOK RATCHET HAND TOOL KIT FLUSH AND PROTRUDING



Fastener Driver	Dia.
-5	5/32
-6	3/16
-8	1/4
-10	5/16

INSTRUCTIONS

1. Determine the type (Flush, Protruding), extended or close quarter application and size of the fastener being used.
2. Use the right combination of Nose and Wrench Driver.

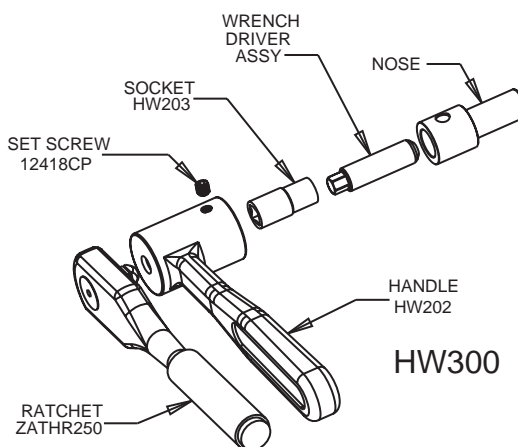
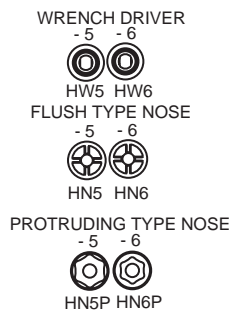
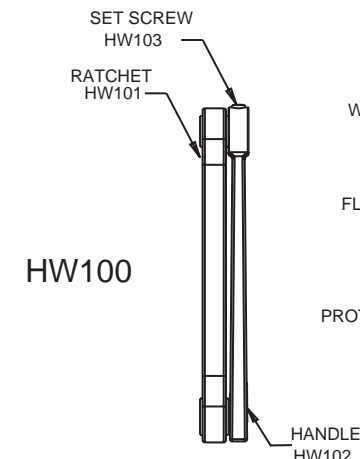
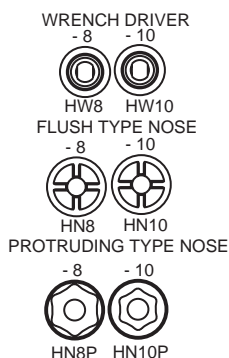
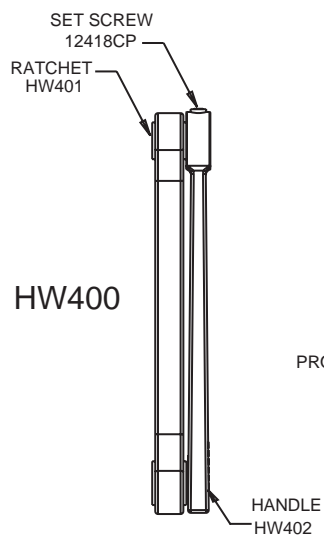
Example:

fastener: Type Flush size 3/16" (- 6) use:

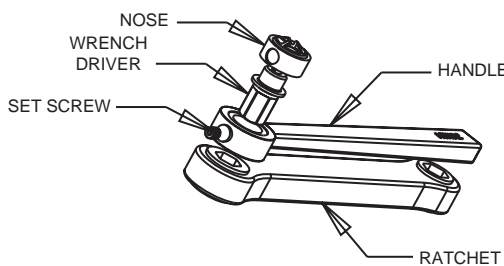
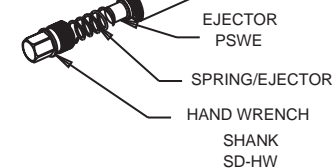
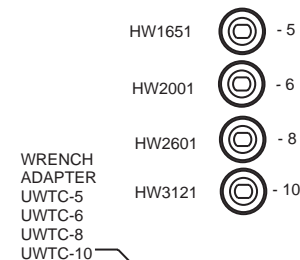
Nose: HW2002 (Extended) or HN6 (Close Quarter)

Wrench Driver Assy: HW2001 (Extended) or HW6 (close Quarter)

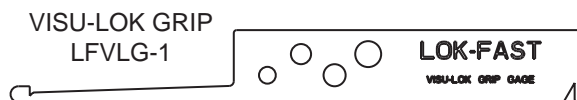
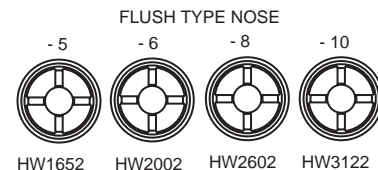
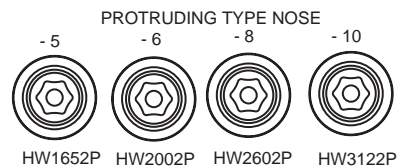
3. Insert Wrench Driver into socket or Handle and Nose, secure with Set Screw.

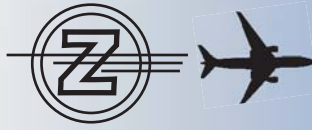


WRENCH DRIVERS ASSY. & SIZE



RATCHET HAND TOOL CLOSE QUARTER





VLHK-102

VISU-LOK RATCHET HAND TOOL KIT FLUSH AND PROTRUDING



INSTRUCTIONS

1. Determine the type (Flush, Protruding) and size of the fastener being used.
2. Use the right combination of Nose and Wrench Driver.

Example:

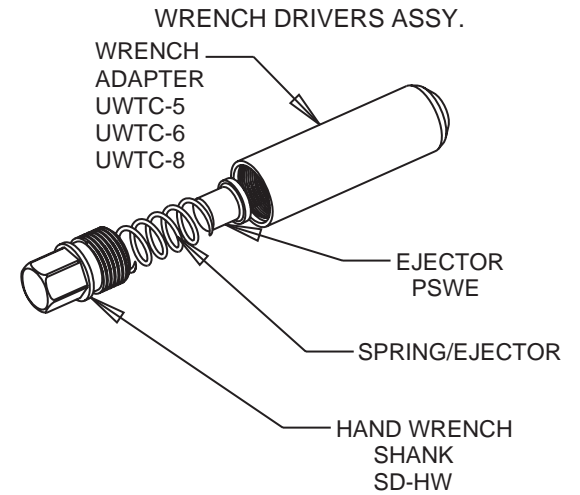
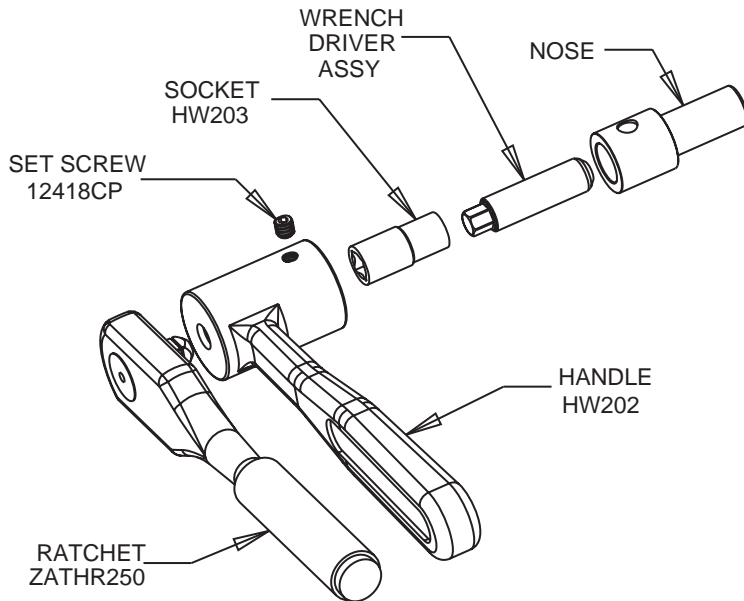
fastener: Type Flush size 3/16" (- 6) use:

Nose: HW2002

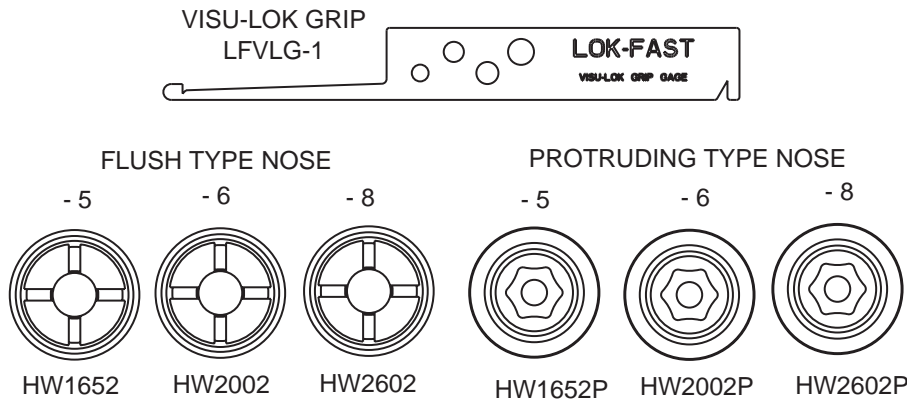
Wrench Driver Assy: HW2001

3. Insert Wrench Driver Assy into socket and Nose and secure with Set Screw.

Fastener Driver	Dia.
- 5	5/32
- 6	3/16
- 8	1/4



WRENCH DRIVERS ASSY. & SIZE





3060KIT

VISU-LOK RATCHET HAND TOOL KIT



INSTRUCTIONS

1. Determine the type (Flush, Protruding, Millable) and size of the fastener being used.
2. Use the right combination of Nose and Wrench Driver.

Example:

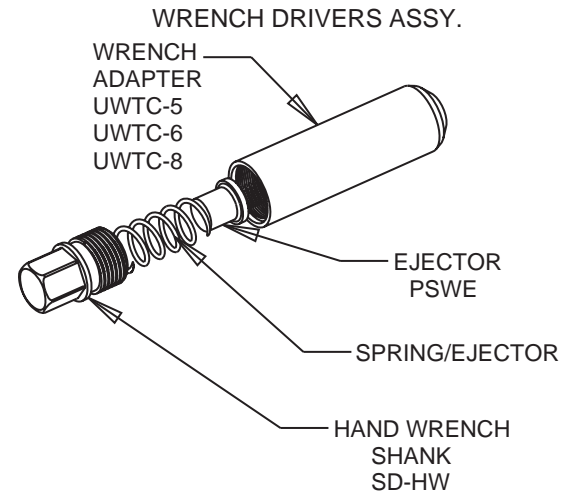
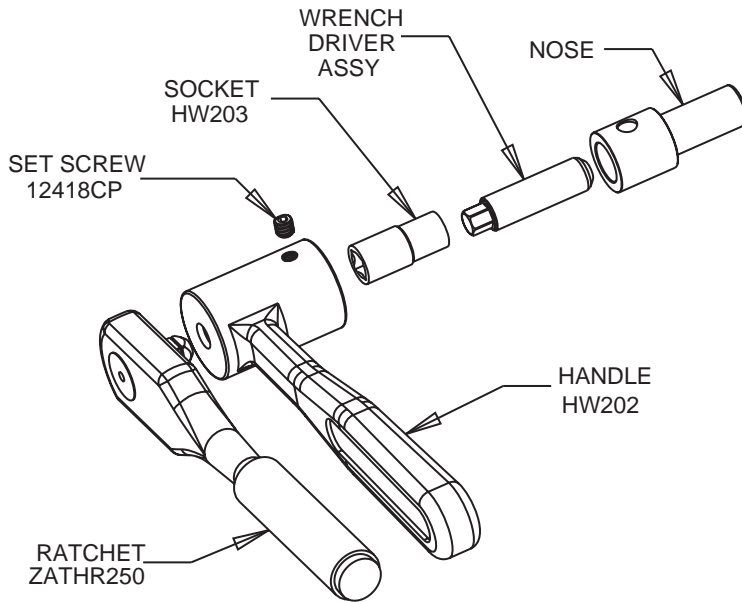
fastener: Type Flush size 3/16" (- 6) use:

Nose: HW2002

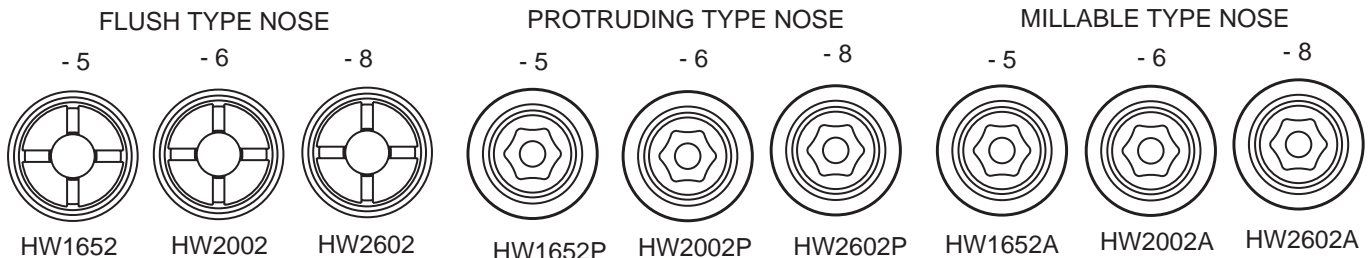
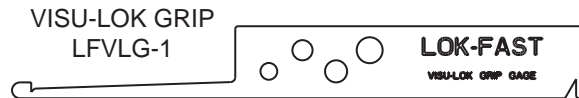
Wrench Driver Assy: HW2001

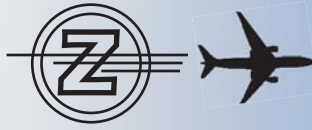
3. Insert Wrench Driver Assy into socket and Nose and secure with Set Screw.

Fastener Driver	Dia.
- 5	5/32
- 6	3/16
- 8	1/4



WRENCH DRIVERS ASSY. & SIZE





HDO-KIT9

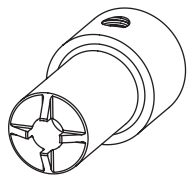
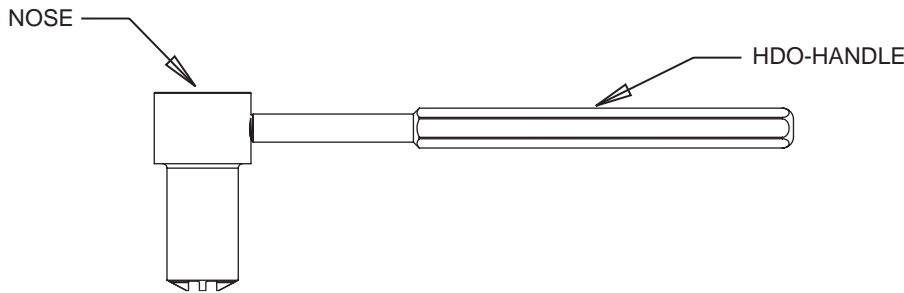
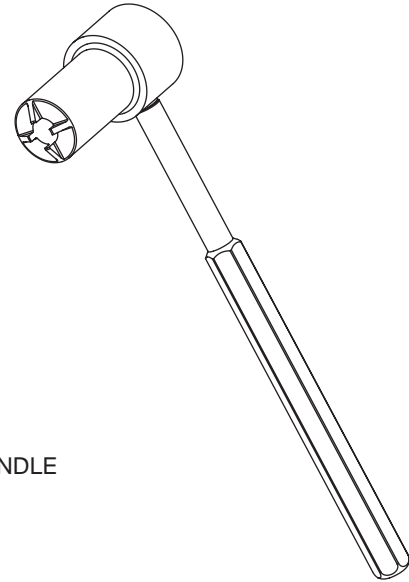
VISU-LOK SERIES HAND DRILL-OUT KIT



INSTRUCTIONS

1. Determine the type (Flush, Protruding, Millable) and size of the fastener being used.
2. Select the appropriate tool part number.

Fastener Driver	Dia.	Drill Size
-5	5/32	9/64
-6	3/16	5/32
-8	1/4	13/64

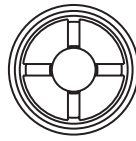
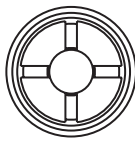
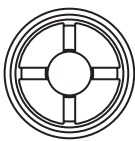


FLUSH TYPE NOSE

-5

-6

-8



1652/HDO

2002/HDO

2602/HDO



PROTRUDING TYPE NOSE

-5

-6

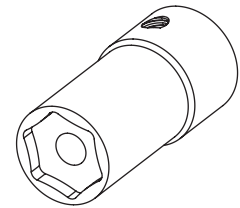
-8



1652P/HDO

2002P/HDO

2602P/HDO

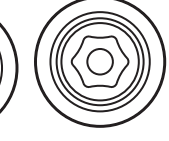


MILLABLE TYPE NOSE

-5

-6

-8



1652A/HDO

2002A/HDO

2602A/HDO



AEROSPACE FASTENER TOOLS

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