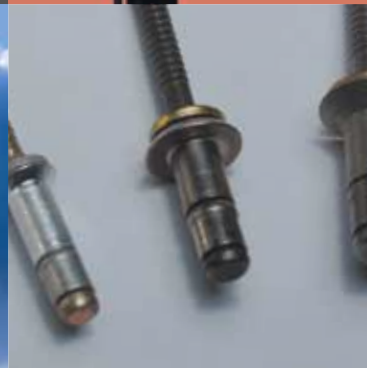
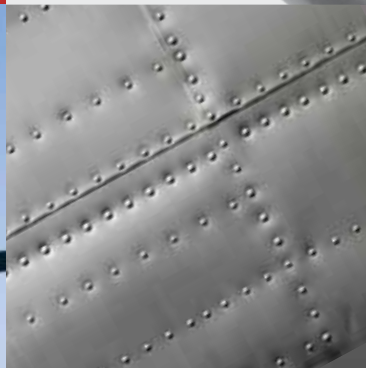
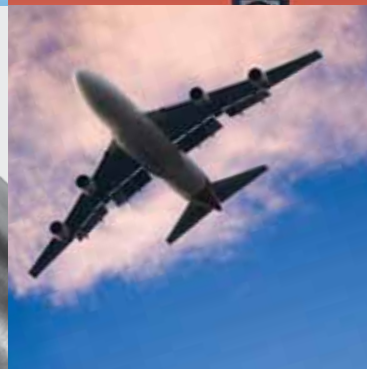
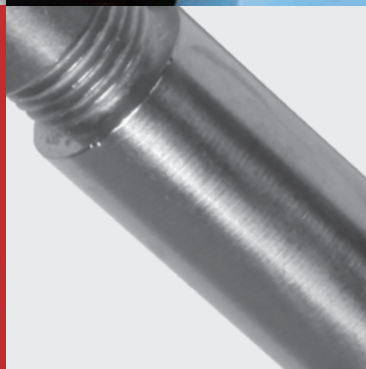
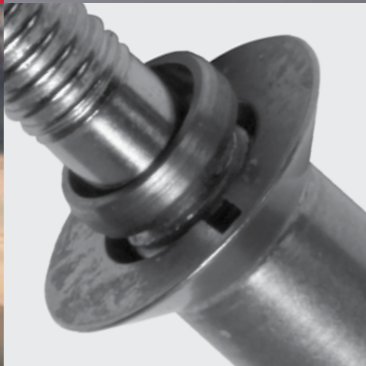


HUCK

AEROSPACE FASTENING SYSTEMS

®



TOOLING PRODUCT CATALOG

Alcoa
Fastening
Systems





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	S4B100-T	OSB100-T	SBP-EU	UBP-EU
	NASM90354U	NASM90353U	UBP-EU	OSBP-EU
	SB100-EV	UB100-EV	OSBP-EU	OUBP-EU
	OUB100-EU	UB100-EU	OUBP-EU	UB100-MV
	SB100-EU	S7B100-T	OUB100-T	UBP-MV
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Huck International, Inc.

Because you keep the world flying...

The critical mission of manufacturing aircraft requires skill, precision and the right tools. Huck fasteners and installation tools have been a proud part of this mission - as a total solution provider - for more than 50 years. Huck fasteners are installed on nearly every commercial and military aircraft worldwide. And we continue to upgrade, revise and improve our fasteners and tools to help make your job easier, faster, and safer as aircraft design and technology advance.

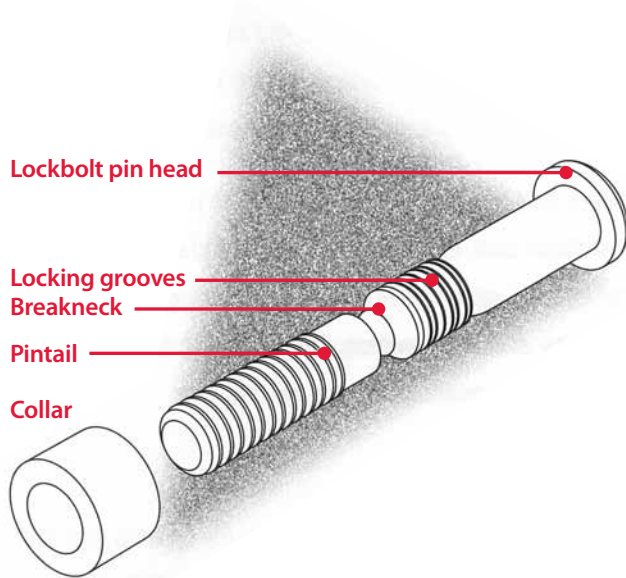
Huck's Installation Equipment Division offers you a complete line of installation tools, hydraulic power sources and accessories. And all the technical support you'll need to keep your production running smoothly, efficiently, flawlessly. Don't hesitate to call us with any questions or special requirements you may have.

How to use this catalog

Each type of fastener has its own section. The Contents page and the first page of each section provide information that will help you identify the correct fasteners for your applications. For more information, please contact us at 800-431-3091 or 845-331-7300.

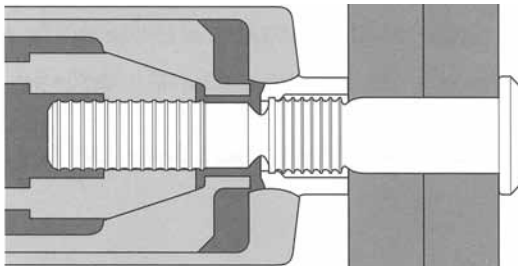
Total Solutions. Total Support. Since 1940.

The Lockbolt Fastener



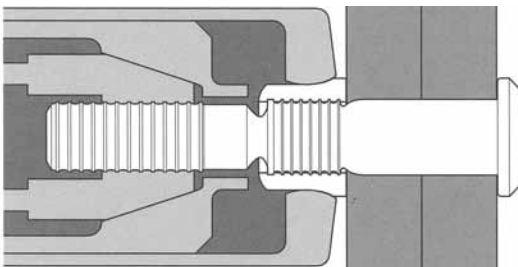
Lockbolt Fasteners are two part fasteners consisting of a pin and collar and are manufactured in a wide variety of materials, head styles, finishes, diameters, and grip lengths. Huck Lockbolt fasteners offer substantial advantages over threaded fasteners in performance and cost. Contact your local aerospace sales engineer for more information.

1



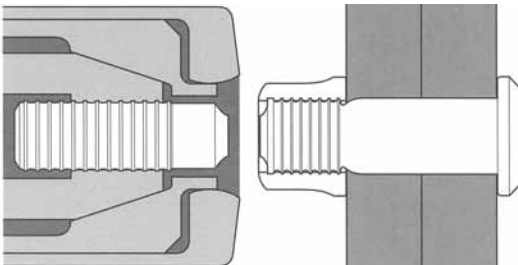
After the pin is inserted from one side of the work surface through a prepared hole, a collar is placed over the pintail. The nose assembly, fitted to an installation tool, is placed over the pintail.

2



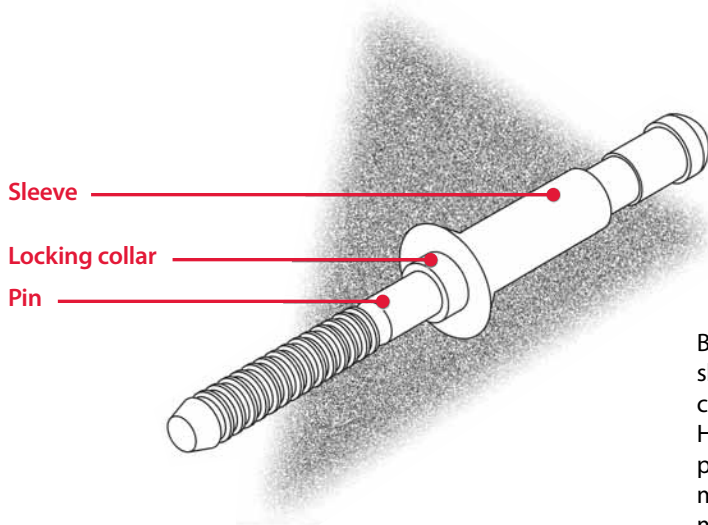
The chuck jaws in the nose assembly grip the pintail grooves. When the tool's trigger is pressed the chuck jaws move rearward, pulling on the pintail, seating the head, and eliminating any gap between work surfaces. The swage die in the outer sleeve of the nose assembly moves forward, swaging the collar material into the pin's locking grooves, providing a permanent lock between the pin and collar.

3

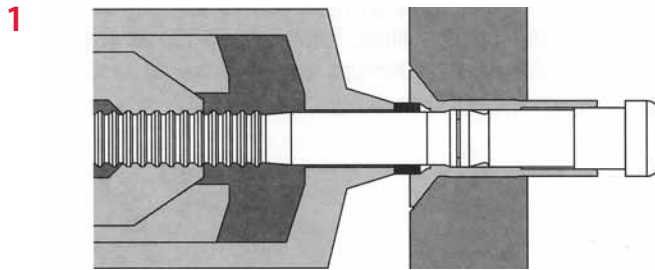


When collar swaging is complete, the tool continues to pull until, at a predetermined force, the pintail separates in tension at the breakneck. Releasing the trigger pushes the tool off the installed fastener.

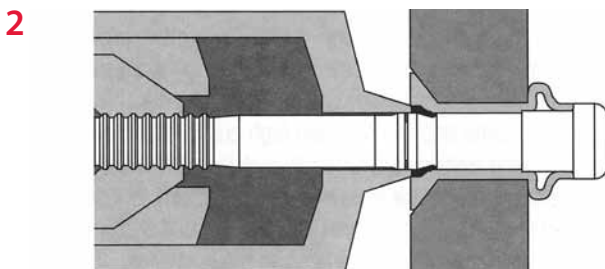
The Blind Fastener



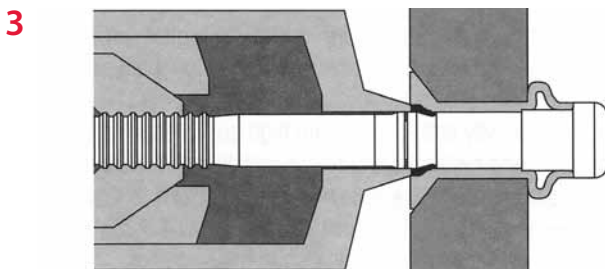
Blind fasteners are single part fasteners consisting of a pin, sleeve, and locking collar and are available in a variety of configurations, materials, head styles, finishes, and diameters. Huck blind bolts and blind rivets provide unmatched performance in aerospace blind side applications—even in the most critical applications in high performance aircraft—and meet or exceed military specifications.



After the fastener is inserted from one side of the work surface through a prepared hole, the nose assembly, fitted to an installation tool, is placed over the pintail and the tool's trigger is pressed. As the pull piston and chuck jaws move rearward, the pin is pulled through the sleeve, expanding it.



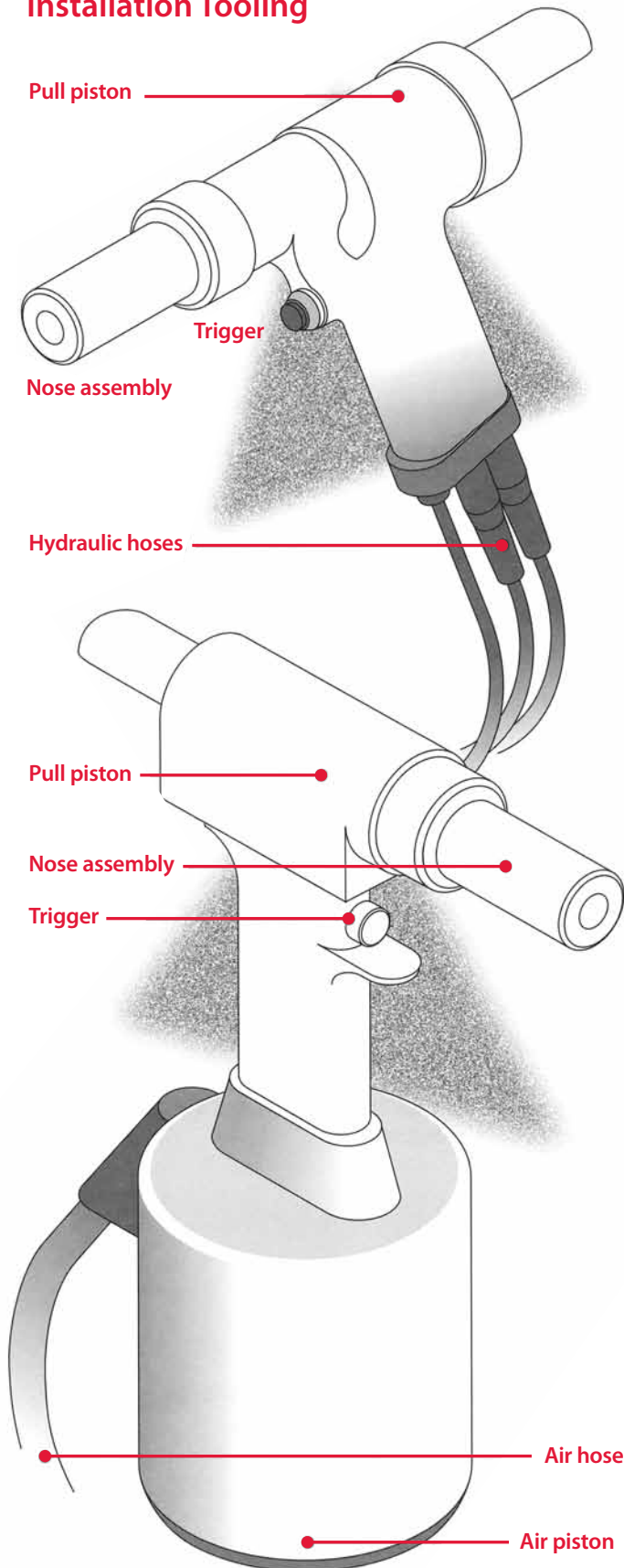
Continued pulling expands the sleeve and forms a bulbed blind head. The locking collar is then set.



The pin breaks at a predetermined location providing a flush installation with no need for additional finishing work.

Note: The illustration shows the installation of a Unimatic® (single action) blind fastener.

Installation Tooling



Hydraulic Tools are powered by hydraulic pressure supplied by a Huck POWERIG® Hydraulic unit. Since the hydraulic pressure is supplied externally, and not produced within the tool, few moving parts are required—the results are small (we produce tools with overall lengths less than 3”), lightweight, and dependable tools. Coupled with an offset nose assembly, these tools will install fasteners in the most demanding limited access applications.

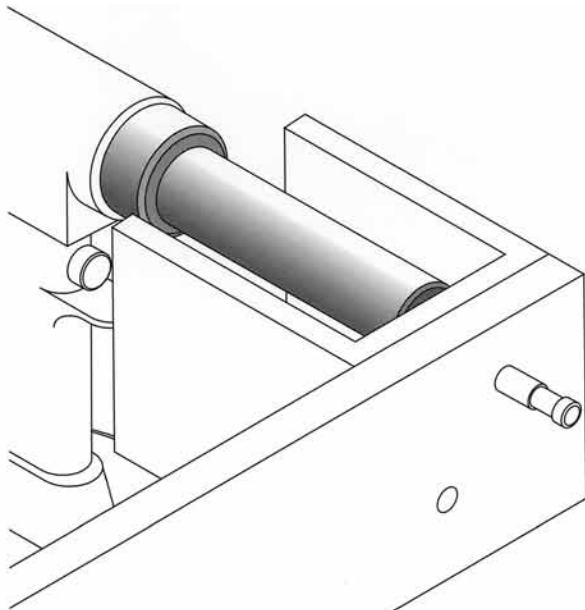
Hydraulic Power Units provide pull and return pressure to operate hydraulic installation tooling. Huck POWERIG Hydraulic units are available as portable units that operate a single tool, as well as large production units for multiple tool use. For more information, refer to the POWERIG Hydraulic unit section.

Pneumatic Tools are heavy duty, reliable, and well suited for high production applications. Powered by 90-100 psi of air pressure, the hydraulic piston develops high pull pressures, producing optimum stroke for efficient one-cycle installations.

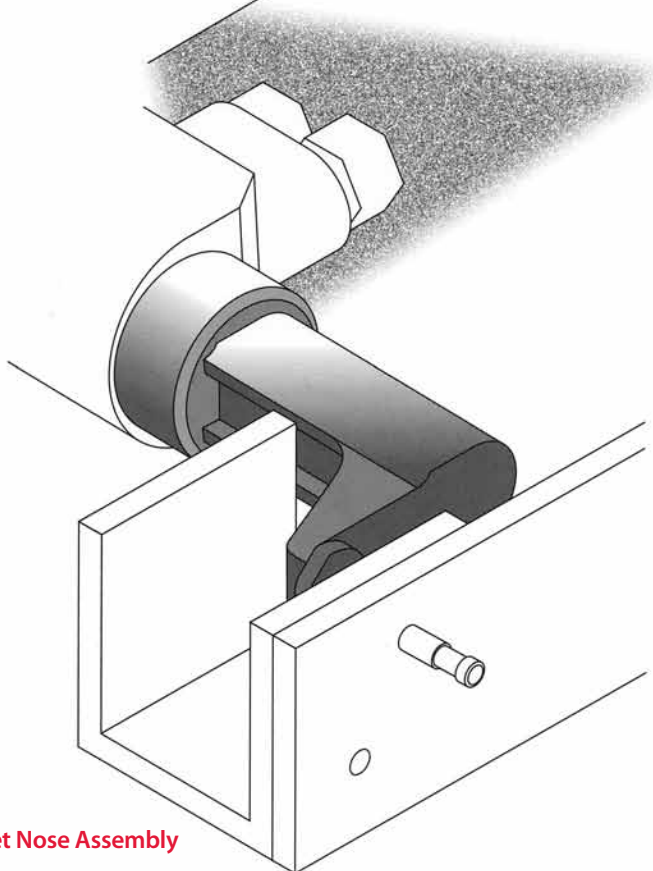
Automated Installation Systems offer speed and consistency and increase productivity. Huck stump-type fasteners coupled with Huck automated tooling provides the perfect way to increase productivity and still maintain high quality standards. Huck automated tooling systems are currently installing fasteners in production applications ranging from aircraft floor beams to fuselage sections and wing panels. Contact a Huck Automated Systems Specialist for help with your aerospace production needs.

Installation Tooling

In-Line Nose Assembly



Nose Assemblies attach to installation tools and, when placed over the fastener and pulled by the tool's piston, perform the actual installation function. A range of configurations provides access for limited clearance, offset, and deep access applications. Nose assemblies are designed to install specific fastener types and diameters.



Offset Nose Assembly

End of Introduction

GP[®] Groove Proportioned Lockbolt Fasteners

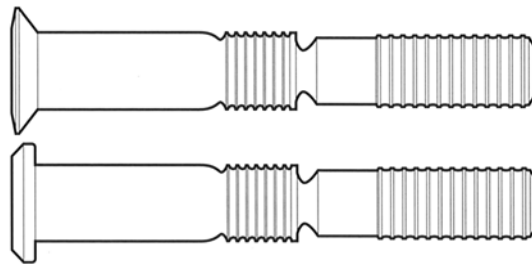


Huck's Groove Proportioned (GP) lockbolt fastener is a high strength, close-toleranced aerospace fastener designed for use in both interference and clearance fit conditions. Common applications include fuselage panels, wing spars and wing splice stringers.

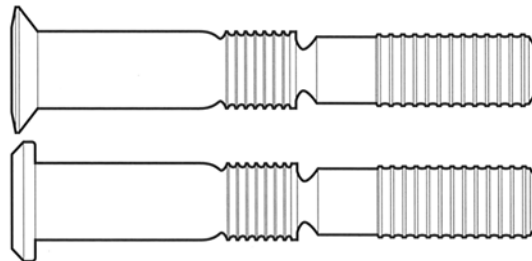
The GP fastener is offered in two versions to meet tension and shear demands.

GP fastener pins are marked with the Huck symbol, basic part number, and material code. Collars are color coded orange for tension and red for shear.

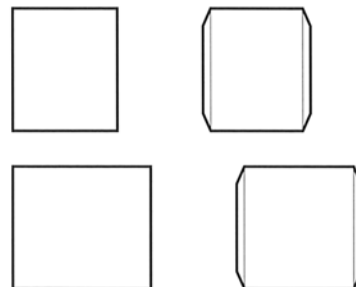
NOTE: These fasteners are available in Stump Type (without pintail) and are intended for hammer drive installation or automated installation. Contact Huck Installation Equipment Division for information on hammer driving and tooling requirements.



GP shear fasteners, flush and protruding heads.



GP tension fasteners, flush and protruding heads.



GP shear collars (top) and tension collars (bottom).

Includes part numbers:

- | | | | |
|--------|--------|--------|--------|
| GPL3SC | GPL4SC | GPL7TP | GPL8TP |
| GPL3SP | GPL7TC | GPL8TC | |



Model 244

Type: Pneudraulic

Applications: High speed production

Features: Lightweight tool for fast, uniform installations. Optimum stroke for one cycle installation of fasteners.

Standard Inline & Offset Nose Assemblies

1/8"	5/32"	3/16"
99-2651	99-2549T 99-2550T	99-2555 99-2556
	99-3703T ¹ 99-3703T-1 ¹	99-3704 ¹ 99-3704-1 ¹



Model 244OS

Type: Pneudraulic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Offset Nose Assemblies

5/32"	3/16"
99-3703T 99-3703T-1	99-3704 99-3704-1



Model 245/255

Type: Pneudraulic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Inline & Offset Nose Assemblies

5/32"	3/16"	1/4"	5/16"
99-2552T 99-2553T	99-2558 99-2559	99-2564 99-2565	99-2567 99-2568
99-3703T ² 99-3703T-1 ²	99-2954 99-3704 ²	99-2952 99-3705 ²	99-2953 99-1720DG ⁴
99-1506 ³ 99-1507 ³ 99-1528 ³	99-3704-1 ² 99-1508 ³ 99-1509 ³ 99-1529 ³	99-3705-1 ² 99-1510 ³ 99-1511 ³ 99-1530 ³	99-1537 ³ 99-1538 ³



Model 246/56

Type: Pneudraulic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners to 10mm diameter, heavy duty for years of dependable service. Minimal moving parts.

Standard Inline & Offset Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"
99-2552T 99-2553T	99-2558 99-2559 99-2954	99-2564 99-2565 99-2952	99-2567 99-2568 99-2953 99-1720DGC ⁴	99-2570 99-2571 99-2957 99-1756DG ⁴

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

¹ Requires Adapter Part Number 128279. No Stroke Limiter Needed
² Requires Adapter Part Number 119400-1 and Stroke Limiter Part Number 118362
³ Requires Adapter Part Number 117831 with Stroke Limiter Part Number 118362
⁴ Requires Adapter Part Number 122134. No Stroke Limiter Needed



Model 2480/A2480

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, and powerful, with an inline piston for longer life.

Standard Inline & Offset Nose Assemblies

1/8"	5/32"	3/16"	1/4"
99-2654	99-2549T 99-2550T 99-3703T ¹ 99-3703T-1 ¹	99-2555 99-2556 99-3704 ¹ 99-3704-1 ¹	99-2561 99-2562



Model 2502/A2502

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, with just one moving part for increased reliability, and an offset piston for limited clearance.

Standard Inline & Offset Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"
99-2552T 99-2553T	99-2558 99-2559 99-2954	99-2564 99-2565 99-2952	99-2567 99-2568 99-2953	99-2570 99-2571 99-2957



Model 2503/A2503

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, with just one moving part for increased reliability, and an offset piston for limited clearance. Achieves the longest stroke available in this series of tooling.

Standard Inline Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"
99-2552T 99-2553T	99-2558 99-2559 99-2954	99-2564 99-2565 99-2952	99-2567 99-2568 99-2953	99-2570 99-2571 99-2957



Model 2580-12/ A2580-12

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight and powerful, with an inline piston for longer life.

Standard Inline Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"
99-2552T 99-2553T	99-2558 99-2559 99-2954	99-2564 99-2565 99-2952	99-2567 99-2568 99-2953	99-2570 99-2571 99-2957

¹ Requires Adapter Part Number 128279. No Stroke Limiter Needed

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.



Model 206-375/ A206-375

Type: Hydraulic

Applications: Limited clearance

Features: Uses offset nose assembly for added clearance, and only one moving part for minimum maintenance. Hoses can be repositioned.

Standard Offset Nose Assemblies

5/32"	3/16"	1/4"
99-3703T	99-3704	99-3705 ⁵
99-3703T-1	99-3704-1	99-3705-1 ⁵



Model 208-625/ A208-625

Type: Hydraulic

Applications: Limited clearance

Features: Offset piston for added tool clearance, and only one moving part for minimum maintenance. Hoses can be repositioned.

Standard Offset Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"
99-1506 ⁶	99-1508 ⁶	99-1510 ⁶	99-1537 ⁶	99-1756DG ⁷
99-1507 ⁶	99-1509 ⁶	99-1511 ⁶	99-1538 ⁶	
99-1528 ⁶	99-1529 ⁶	99-1530 ⁶	99-1720DG	



Model 700/A700

Type: Hydraulic

Applications: Limited clearance

Features: Built in nose assembly for convenience and dependability, in an extremely small package.

Model 700 Series Eccentric Tooling

3/16"	1/4"	5/16"	3/8"
706GP	708GP	710GP	712GP



Model 7352

Type: Hydraulic

Applications: Limited clearance

Features: Close center to edge clearance using standard 1/8" - 1/4" nose assemblies.

Standard Inline Nose Assemblies

1/8"	5/32"	3/16"	1/4"
99-2651	99-2549S	99-2555	99-2561
	99-2550S	99-2556	99-2562
	99-2550T		
	99-2549T		
	99-2550T		

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

⁵ For 1/4" Diam. Fasteners, Remove Stroke Limiter, Replace Valve with Valve Part Number 119422

⁶ Requires Adapter Part Number 125770. No Stroke Limiter Needed

⁷ For 3/8" Diam. Fasteners, Remove Stroke Limiter, Replace Valve with Valve Part Number 120020

Nose Assembly Specifications

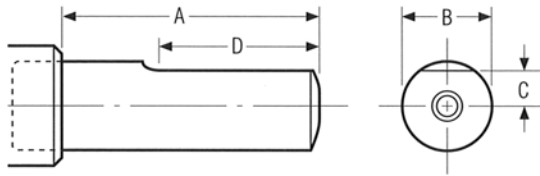


Figure 1

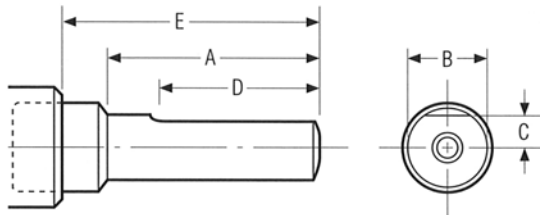


Figure 2

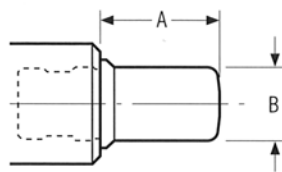


Figure 3

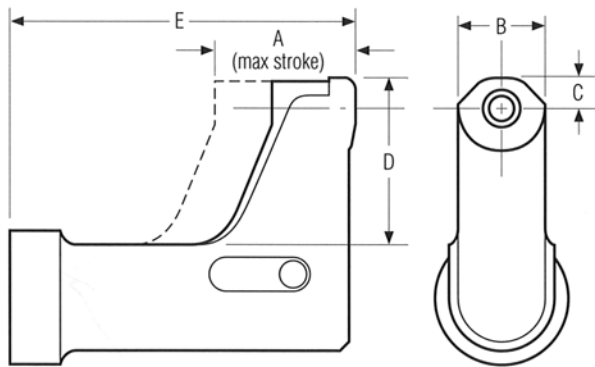


Figure 4

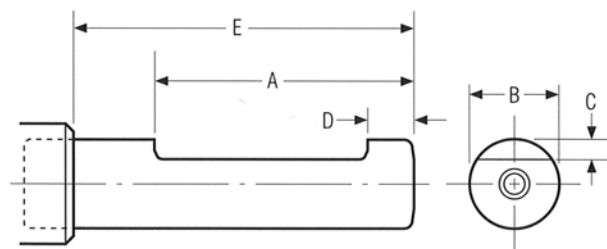


Figure 5

1/8" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-2651	1	1	3.00	0.59	0.27	1.37	

5/32" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1506	3	0	.14	.88			
99-1507	3	0	1.19	.75			
99-1528	3	0	.47	.75			
99-2549T	2	1	1.20	.64	.29	1.15	1.85
99-2550T	2	1	3.70	.64	.29	3.65	4.35
99-2552T	2	1	1.30	.64	.29	1.45	2.25
99-2553T	2	1	3.80	.64	.29	3.95	4.75
99-3703-T	4	0	1.37	.91	.371	1.00	2.55
99-3703-1T	4	0	1.37	.91	.371	1.63	3.36

3/16" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1508	3	0	.19	.88			
99-1509	3	0	1.19	.75			
99-1529	3	0	.50	.75			
99-2555	2	1	1.25	.71	.33	1.20	1.85
99-2556	2	1	3.75	.71	.33	3.70	4.35
99-2558	2	1	1.30	.71	.33	1.45	2.20
99-2559	2	1	3.80	.71	.33	3.90	4.70
99-2954	5	0	2.84	.95	.42	.52	4.35
99-3704	4	0	1.37	.91	.37	1.00	2.59
99-3704-1	4	0	1.37	.91	.37	1.63	3.40

T - for use with tension fasteners

Nose Assembly Specifications

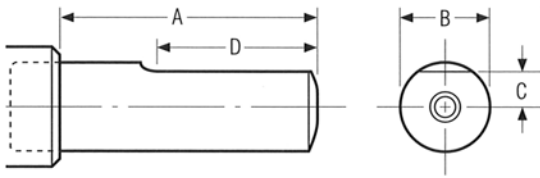


Figure 1

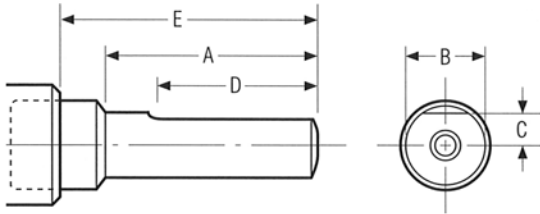


Figure 2

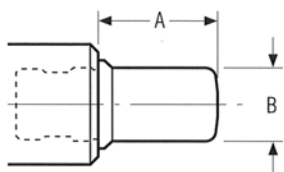


Figure 3

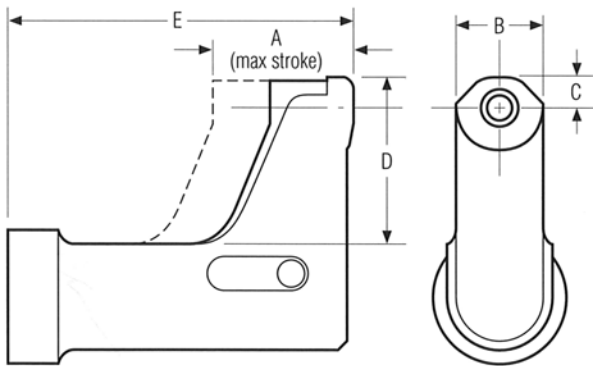


Figure 4

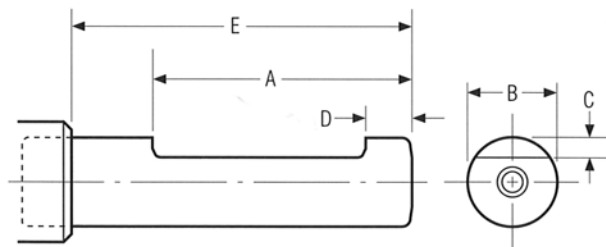


Figure 5

1/4" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1510	3	0	.19	.88			
99-1511	3	0	1.19	.75			
99-1530	3	0	.56	.75			
99-2561	1	1	1.85	.76	.34	1.20	
99-2562	1	1	4.35	.76	.34	3.75	
99-2564	1	1	2.20	.76	.34	1.38	
99-2565	2	1	3.85	.76	.34	3.95	4.65
99-2952	5	0	2.89	1.06	.30	.58	4.34
99-3703T	4	0	1.37	.91	.37	1.00	2.55
99-3703T-1	4	0	1.37	.91	.37	1.63	3.36
99-3705	4	0	1.41	.91	.37	1.00	2.59
99-3705-1	4	0	1.42	.91	.37	1.63	3.40

5/16" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1537	3	0	.19	.88			
99-1538	3	0	.60	.75			
99-1720DG	4	0	1.95	1.20	.50	1.13	3.33
99-2567	2	1	1.55	.92	.43	1.50	2.20
99-2568	2	1	4.05	.92	.43	4.00	4.70
99-2953	5	0	2.91	1.06	.34	.60	4.35

3/8" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1756DG	4	0	1.97	1.20	.51	1.14	3.34
99-2570	1	1	2.50	1.06	.48	1.95	
99-2571	1	1	4.70	1.06	.48	4.05	
99-2957	5	0	2.91	1.06	.34	.60	4.35

T - for use with tension fasteners

MGP® Groove Proportioned Lockbolt Fasteners

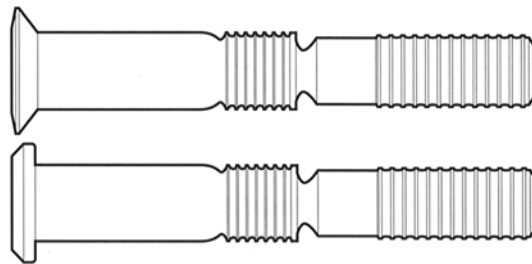


Huck's Metric Groove Proportioned (MGP) lockbolt fastener is a high strength, close-toleranced aerospace fastener designed for use in both interference and clearance fit conditions. Common applications include fuselage panels, wing spars and wing splice stringers.

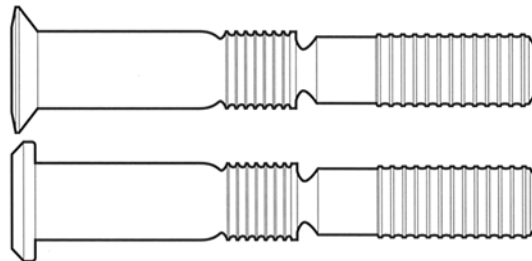
The MGP fastener is offered in two versions to meet tension and shear demands.

MGP fastener pins are marked with the Huck symbol, basic part number, and material code. Collars are color coded orange for tension and red for shear.

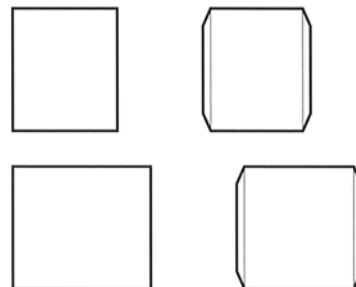
NOTE: These fasteners are available in Stump Type (without pintail) and are intended for hammer drive installation or automated installation. Contact Huck Installation Equipment Division for information on hammer driving and tooling requirements.



MGP shear fasteners, flush and protruding heads.



MGP tension fasteners, flush and protruding heads.



MGP shear collars (top) and tension collars (bottom).

Includes part numbers:

- MGPL28TC MGPL6TC MGPL8TP
- MGPL28TP MGPL7TC

MGP® Metric Groove Proportioned Lockbolt Fasteners



Model 244

Type: Pneudraulic

Applications: High speed production

Features: Lightweight tool for fast, uniform installations. Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Inline & Offset Nose Assemblies

4MM	5MM	6MM
99-2573	99-2579	99-2555
99-2574	99-2580	99-2556
99-3706 ¹	99-3707 ¹	99-3708 ¹
99-3706-1 ¹	99-3707-1 ¹	99-3708-1 ¹



Model 244OS

Type: Pneudraulic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Offset Nose Assemblies

MM	5MM	6MM
99-3706	99-3707	99-3708
99-3706-1	99-3707-1	99-3708-1



Model 245/255

Type: Pneudraulic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Inline & Offset Nose Assemblies

4MM	5MM	6MM	8MM
99-2576	99-2582	99-2588	99-2591
99-2577	99-2583	99-2589	99-2592
99-3706 ²	99-3707 ²	99-3708 ²	99-1722DG ⁴
99-3706-1 ²	99-3707-1 ²	99-3708-1 ²	



Model 246/56

Type: Pneudraulic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Inline & Offset Nose Assemblies

4MM	5MM	6MM	8MM	10MM
99-2576	99-2582	99-2588	99-2591	99-2546
99-2577	99-2583	99-2589	99-2592	99-2547
			99-1722DG ⁴	99-1760DG ⁴

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

¹ Requires Adapter Part Number 128279. No Stroke Limiter Needed

² Requires Adapter Part Number 119400-1 and Stroke Limiter Part Number 118362

⁴ Requires Adapter Part Number 122134. No Stroke Limiter Needed



Model 2480/A2480

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, and powerful, with an inline piston for longer life.

Standard Inline & Offset Nose Assemblies

4MM	5MM	6MM
99-2573	99-2579	99-2585
99-2574	99-2580	99-2586
99-3706 ¹	99-3707 ¹	99-3708 ¹
99-3706-1 ¹	99-3707-1 ¹	99-3708-1 ¹



Model 2502/A2502

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, with just one moving part for increased reliability, and an offset piston for limited clearance.

Standard Inline Nose Assemblies

4MM	5MM	6MM	8MM	10MM
99-2576	99-2582	99-2588	99-2591	99-2546
99-2577	99-2583	99-2589	99-2592	99-2547



Model 2503/A2503

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, with just one moving part for increased reliability, and an offset piston for limited clearance. Achieves the longest stroke available in this series of tooling.

Standard Inline Nose Assemblies

4MM	5MM	6MM	8MM	10MM
99-2576	99-2582	99-2588	99-2591	99-2546
99-2577	99-2583	99-2589	99-2592	99-2547



Model 2580-12/ A2580-12

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight and powerful, with an inline piston for longer life

Standard Offset Nose Assemblies

4MM	5MM	6MM	8MM	10MM
99-2576	99-2582	99-2588	99-2591	99-2546
99-2577	99-2583	99-2589	99-2592	99-2547

¹ Requires Adapter Part Number 128279. No Stroke Limiter Needed

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

MGP® Metric Groove Proportioned Lockbolt Fasteners



Model 206-375/ A206-375

Type: Hydraulic

Applications: Limited clearance

Features: Uses offset nose assembly for added clearance, and only one moving part for minimum maintenance. Hoses can be repositioned.

Standard Offset Nose Assemblies

4MM	5MM	6MM
99-3706	99-3707	99-3708
99-3706-1	99-3707-1	99-3708-1



Model 208-625/ A208-625

Type: Hydraulic

Applications: Limited clearance

Features: Offset piston for added tool clearance, and only one moving part for minimum maintenance. Hoses can be repositioned.

Standard Offset Nose Assemblies

8MM	10MM
99-1722DG	99-1760DG



Model 700/A700

Type: Hydraulic

Applications: Limited clearance

Features: Built in nose assembly for convenience and dependability, in an extremely small package.

Model 700 Series Eccentric Tooling

5MM	6MM	8MM	10MM
M705GP	M706GP	M708GP	M710GP
AM705GP	AM706GP	AM708GP	AM710GP



Model 7352

Type: Hydraulic

Applications: Limited clearance

Features: Close center to edge clearance using standard 1/8" - 1/4" nose assemblies.

Standard Inline Nose Assemblies

4MM	5MM	6MM
99-2573	99-2579	99-2585
99-2574	99-2580	99-2586

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

Nose Assembly Specifications

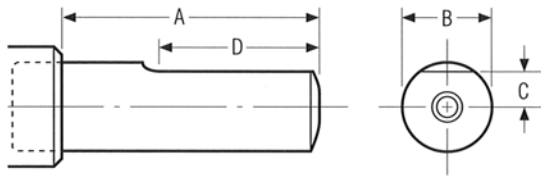


Figure 1

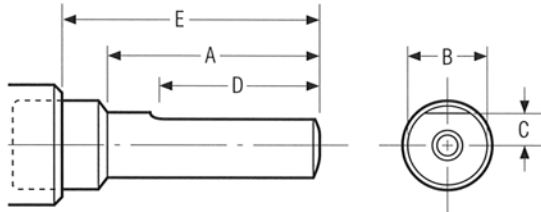


Figure 2

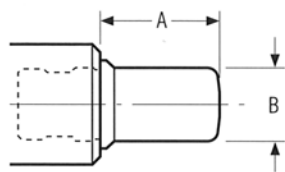


Figure 3

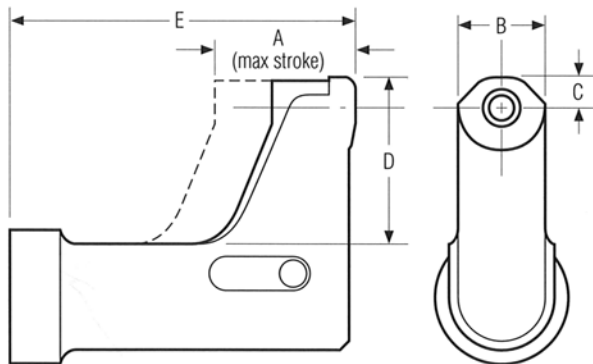


Figure 4

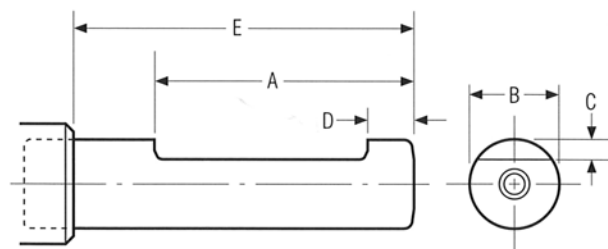


Figure 5

4mm Diameter (Dimensions in millimeters)

Nose Assy	Fig	Flats	A	B	C	D	E
99-2573	2	1	30	16	7	29	48
99-2574	2	1	93	16	7	93	112
99-2576	2	1	31	16	7	37	57
99-2577	2	1	96	16	7	100	120
99-3706	4	0	34	23	9	25	65
99-3706-1	4	0	34	23	9	41	85

5mm Diameter (Dimensions in millimeters)

Nose Assy	Fig	Flats	A	B	C	D	E
99-2579	2	1	32	18	8	31	49
99-2580	2	1	95	18	8	95	112
99-2582	2	1	34	18	8	36	57
99-2583	2	1	97	18	8	100	120
99-3707	4	0	36	23	9	25	66
99-3707-1	4	0	36	23	9	41	86

6mm Diameter (Dimensions in millimeters)

Nose Assy	Fig	Flats	A	B	C	D	E
99-2585	1	1	49	19	9	32	
99-2586	1	1	112	19	9	96	
99-2588	2	1	35	19	9	36	57
99-2589	2	1	98	19	9	100	120
99-3708	4	0	36	23	9	25	66
99-3708-1	4	0	36	23	9	41	86

8mm Diameter (Dimensions in millimeters)

Nose Assy	Fig	Flats	A	B	C	D	E
99-1722DG	4	0	50	30	13	29	85
99-2591	2	1	39	23	11	39	58
99-2592	2	1	103	23	11	102	120

10mm Diameter (Dimensions in millimeters)

Nose Assy	Fig	Flats	A	B	C	D	E
99-2591	2	1	39	23	11	39	58
99-2592	2	1	103	23	11	102	120

1 S - for use with shear fasteners T - for use with tension fasteners

Note: Special noses for clearance applications may be available.
Contact your HUCK representative for more information.

End of Section 2

LGP® Lightweight GP Lockbolt Fasteners

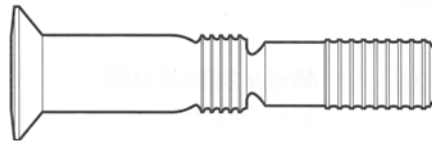
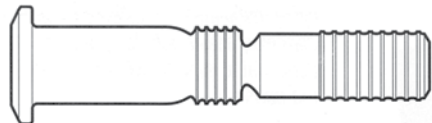


Huck's Lightweight LGP lockbolt fastener is a high strength, lightweight aerospace fastener. Easily the most cost effective aerospace fastener available, the LGP fastener can help reduce aircraft weight and fastener installation time.

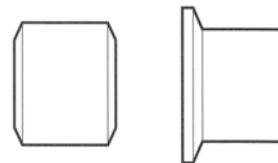
The following part numbers are referenced in this section: LGPL2S() and LGPL4S() for metallic applications; LGPL8SC, LGPL9S(), LGPL7SC, LPPL12SP, and LGPL18SC for composite applications. Although not all LGP fastener part numbers are included, the tooling in this section will install all LGP pull-type fasteners.

LGP fastener pins are marked with the Huck symbol, basic part number, and material code. Aluminum collars are color coded yellow.

NOTE: These fasteners are available in Stump Type (without pintail) and are intended for hammer drive installation or automated installation. Contact Huck Installation Equipment Division for information on hammer driving and tooling requirements.



LGP shear and shear/tension fasteners, protruding and flush heads.



LGP collars, regular and flanged.

Includes part numbers:

- | | | |
|---------|---------|----------|
| LGPL2SC | LGPL4SP | LGPL9SP |
| LGPL2SP | LGPL8SC | LGPL12SP |
| LGPL4SC | LGPL9SC | LGPL18SC |



Model 244

Type: Pneumatic

Applications: High speed production

Features: Lightweight tool for fast, uniform installations. Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Inline & Offset Nose Assemblies

5/32"	3/16"	1/4"
99-2501	99-2507	99-2513
99-2502	99-2508	99-2514
99-3700 ¹	99-3701 ¹	99-37021 ¹
99-3700-1 ¹	99-3701-1 ¹	99-3702-1 ¹
99-2958	99-2959	



Model 244OS

Type: Pneumatic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Offset Nose Assemblies

5/32"	3/16"	1/4"
99-3700	99-3701	99-3702
99-3700-1	99-3701-1	99-3702-1



Model 245/255

Type: Pneumatic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Inline & Offset Nose Assemblies

5/32"	3/16"	1/4"	5/16"
99-2504	99-2510	99-2516	99-2519
99-2505	99-2511	99-2517	99-2520
99-3700 ²	99-3701 ²	99-2950	99-2951
99-3700-1 ²	99-3701-1 ²	99-3702 ²	99-1719DG ⁴
99-1500 ³	99-1502 ³	99-3702-1 ²	99-1536 ³
99-1501 ³	99-1503 ³	99-1504 ³	99-1539 ³
99-1525 ³	99-1526 ³	99-1505 ³	
		99-1527 ³	

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

¹ Requires Adapter Part Number 128279. No Stroke Limiter Needed
² Requires Adapter Part Number 119400-1 and Stroke Limiter Part Number 118362
³ Requires Adapter Part Number 117831 with Stroke Limiter Part Number 118362
⁴ Requires Adapter Part Number 122134. No Stroke Limiter Needed



Model 246/56

Type: Pneudraulic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Inline & Offset Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"	7/16"
99-2504	99-2510	99-2516	99-2519	99-2522	99-3790 ⁴
99-2505	99-2511	99-2517	99-2520	99-2523	
		99-2950	99-1719DG ⁴	99-1754DG ⁴	



Model 2480/A2480

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, and powerful, with an inline piston for longer life.

Standard Inline & Offset Nose Assemblies

5/32"	3/16"	1/4"
99-2501	99-2507	99-2513
99-2502	99-2508	99-2514
99-3700 ¹	99-3701 ¹	99-3702 ¹
99-3700-1 ¹	99-3701-1 ¹	99-3702-1 ¹
99-2958	99-2959	



Model 2502/A2502

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, with just one moving part for increased reliability, and an offset piston for limited clearance.

Standard Inline Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"	7/16"
99-2504	99-2510	99-2516	99-2519	99-2522	99-3790 ⁴
99-2505	99-2511	99-2517	99-2520	99-2523	
		99-2950	99-2951	99-2956	

¹ Requires Adapter Part Number 128279. No Stroke Limiter Needed
⁴ Requires Adapter Part Number 122134. No Stroke Limiter Needed

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.



Model 2503/A2503

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, with just one moving part for increased reliability, and an offset piston for limited clearance. Achieves the longest stroke available in this series of tooling.

Standard Inline Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"	7/16"
99-2504	99-2510	99-2516	99-2519	99-2522	99-3790 ⁴
99-2505	99-2511	99-2517	99-2520	99-2523	



Model 2580-12/ A2580-12

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight and powerful, with an inline piston for longer life.

Standard Inline Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"	7/16"
99-2504	99-2510	99-2516	99-2519	99-2522	99-3790 ⁴
99-2505	99-2511	99-2517	99-2520	99-2523	



Model 2600-16-12/ A2600-16-12

Type: Hydraulic

Applications: Limited clearance

Features: Small, lightweight and powerful, with an inline piston for longer life.

Standard Inline Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"	7/16"
					99-2657
					99-2657-1

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

1 Requires Adapter Part Number 128279. No Stroke Limiter Needed
 2 Requires Adapter Part Number 119400-1 and Stroke Limiter Part Number 118362
 3 Requires Adapter Part Number 117831 with Stroke Limiter Part Number 118362
 4 Requires Adapter Part Number 122134. No Stroke Limiter Needed



Model 206-375/ A206-375

Type: Hydraulic

Applications: Limited clearance

Features: Uses offset nose assembly for added clearance, and only one moving part for minimum maintenance. Hoses can be repositioned.

Standard Offset Nose Assemblies

5/32"	3/16"	1/4"
99-3700	99-3701	99-3702
99-3700-1	99-3701-1	99-3702-1



Model 208-625/ A208-625

Type: Hydraulic

Applications: Limited clearance

Features: Offset piston for added tool clearance, and only one moving part for minimum maintenance. Hoses can be repositioned.

Standard Offset Nose Assemblies

5/16"	3/8"	7/16"
99-1719DG	99-1754DG	99-3790
99-1719-1DGC	99-1754-1DGC	



Model 700/A700

Type: Hydraulic

Applications: Limited clearance

Features: Built in nose assembly for convenience and dependability, in an extremely small package.

Model 700 Series Eccentric Tooling

5/32"	3/16"	1/4"	5/16"	3/8"	7/16"
705LGP	706LGP	708LGP	710LGP	712LGP	714LGP
705LGP-2	706LGP-1	708LGP-1	710LGP-1		714LGP-1
	706LGP-2	708LGP-2	710LGP-2		
	706LGP-3				



Model 7352

Type: Hydraulic

Applications: Limited clearance

Features: Close center to edge clearance using standard 1/8" - 1/4" nose assemblies.

Standard Inline Nose Assemblies

1/8"	5/32"	3/16"	1/4"
99-2654	99-2501	99-2507	99-2513
	99-2502	99-2508	99-2514

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

Nose Assembly Specifications

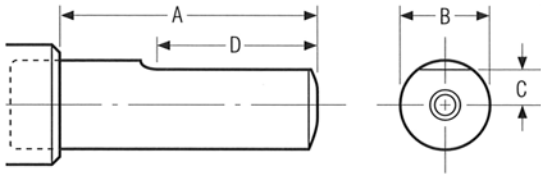


Figure 1

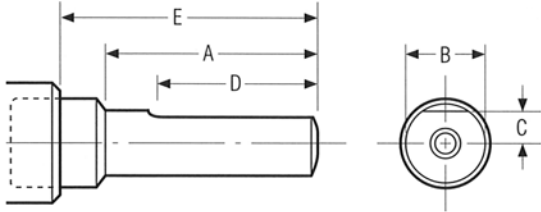


Figure 2

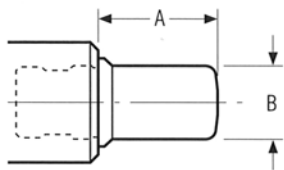


Figure 3

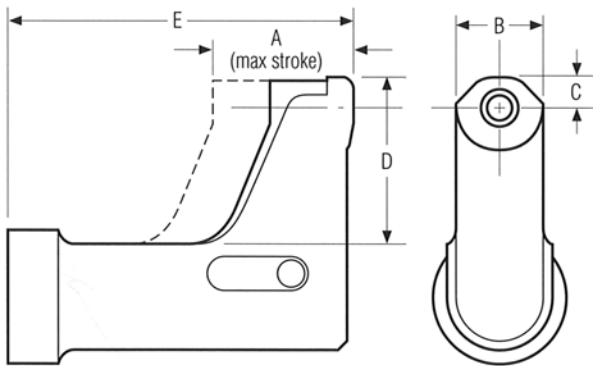


Figure 4

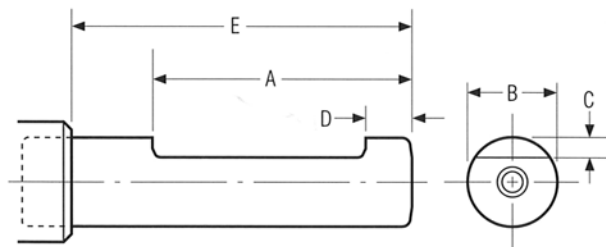


Figure 5

1/8" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-2654	1	1	2.95	.59	.27		

5/32" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1500	3	0	.09	.87			
99-1501	3	0	1.19	.75			
99-1525	3	0	.42	.75			
99-2501	2	1	1.15	.64	.29	1.15	1.80
99-2502	2	1	3.60	.64	.29	3.60	4.30
99-2504	2	1	1.25	.64	.29	1.40	2.15
99-2505	2	1	3.70	.64	.29	3.90	4.60
99-2958	?	?	?	?	?	?	?
99-3700	4	0	1.33	.91	.37	1.00	2.50
99-3700-1	4	0	1.33	.91	.37	1.63	3.31
99-3700C	4	0	1.33	.91	.37	1.00	2.50
99-3700-1C	4	0	1.33	.91	.37	1.63	3.31

3/16" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1502	3	0	.09	.87			
99-1503	3	0	1.19	.75			
99-1526	3	0	.42	.75			
99-2507	2	1	1.15	.71	.32	1.15	1.80
99-2508	2	1	3.60	.71	.32	3.60	4.30
99-2510	2	1	1.25	.71	.32	1.35	2.15
99-2511	2	1	3.70	.71	.32	3.90	4.60
99-2959	?	?	?	?	?	?	?
99-3701	4	0	1.33	.91	.37	1.00	2.50
99-3701-1	4	0	1.33	.91	.37	1.63	3.31

7/32" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-2675	1	1	2.93	.74	.34		

Nose Assembly Specifications

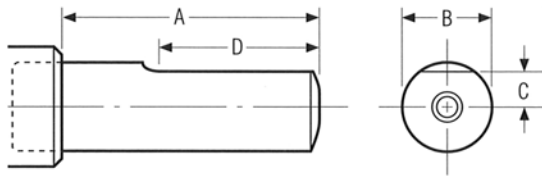


Figure 1

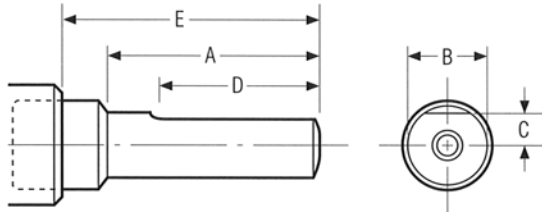


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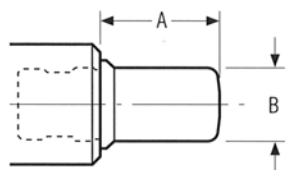


Figure 3

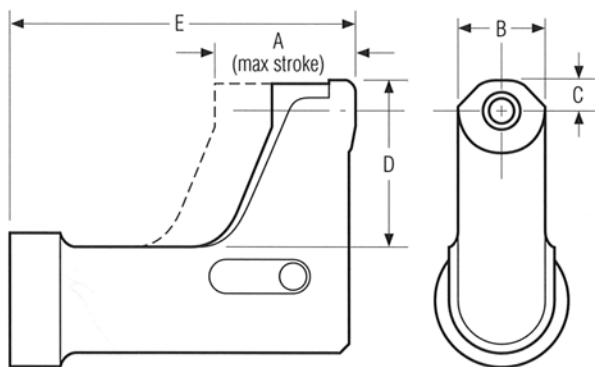


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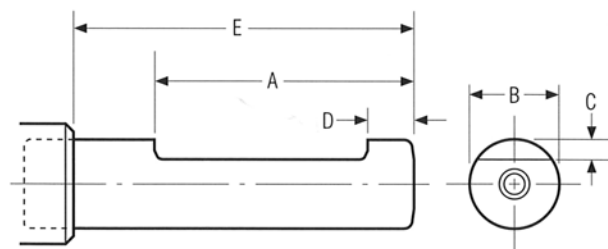


Figure 5

1/4" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1505	3	0	1.18	.75			
99-1504	3	0	.09	.88			
99-1527	3	0	.48	.75			
99-2513	1	1	1.18	.76	.35	1.20	
99-2514	1	1	4.30	.76	.35	3.70	
99-2516	2	1	1.30	.76	.35	1.35	2.15
99-2517	2	1	3.80	.76	.35	3.85	4.65
99-2950	5	0	2.88	1.06	.30	.52	4.30
99-3702	4	0	1.33	.91	.37	1.00	2.50
99-3702-1	4	0	1.33	.91	.37	1.63	3.31

5/16" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1536	3	0	.09	.88			
99-1539	3	0	.52	.75			
99-1566	3	0	.09	.88			
99-1719-FBDG	4	0	3.10	1.16	.48	1.37	3.09
99-1719-1DGC	4	0	2.16	1.16	.42	2.42	4.09
99-2519	2	1	1.45	.92	.43	1.50	2.20
99-2520	2	1	3.95	.92	.43	3.95	4.70
99-2951	5	0	2.90	1.06	.34	.56	4.33

3/8" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1754DG	4	0	1.92	1.20	.50	1.38	3.30
99-1754-1DGC	4	0	1.92	1.20	.50	2.00	3.30
99-2522	1	1	2.50	1.06	.48	1.80	
99-2523	1	1	4.70	1.06	.48	4.00	
99-2956	5	0	2.90	1.06	.34	.56	4.33

7/16" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-2657	1	2	3.00	1.31	.61		

End of Section 3

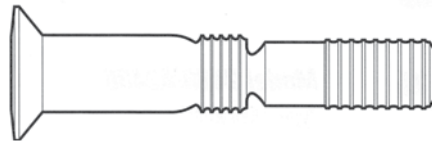
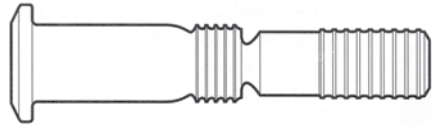
MLGP® Metric Lightweight GP Lockbolt Fasteners



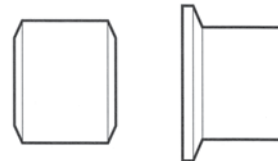
Huck's Lightweight LGP lockbolt fastener is a high strength, lightweight aerospace fastener. Easily the most cost effective aerospace fastener available, the LGP fastener can help reduce aircraft weight and fastener installation time.

LGP fastener pins are marked with the Huck symbol, basic part number, and material code. Aluminum collars are color coded yellow.

NOTE: These fasteners are available in Stump Type (without pintail) and are intended for hammer drive installation or automated installation. Contact Huck Installation Equipment Division for information on hammer driving and tooling requirements.



MLGP shear and shear/tension fasteners, protruding and flush heads.



MLGP collars, regular and flanged.

Includes part numbers:

MLGPL22SC	MLGPL29SP	MLGPL6CT
MLGPL22SP	MLGPL2SC	MLGPL9CT
MLGPL28SC	MLGPL2SP	MLGPL9PT



Model 244

Type: Pneudraulic

Applications: High speed production

Features: Lightweight tool for fast, uniform installations. Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Inline & Offset Nose Assemblies

4mm	5mm	6mm
99-2525	99-2531	99-2537
99-2526	99-2532	99-2538
99-3709 ¹	99-3710 ¹	99-3711 ¹
99-3709-1 ¹	99-3710-1 ¹	99-3711-1 ¹



Model 244OS

Type: Pneudraulic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Offset Nose Assemblies

4mm	5mm	6mm
99-3709	99-3710	99-3711
99-3709-1	99-3710-1	99-3711-1



Model 245/255

Type: Pneudraulic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Inline & Offset Nose Assemblies

4mm	5mm	6mm	8mm
99-2528	99-2534	99-2540	99-2543
99-2529	99-2535	99-2541	99-2544
99-3709 ²	99-3710 ²	99-3711 ²	99-1721DG ⁴
99-3709-1 ²	99-3710-1 ²	99-3711-1 ²	
99-1543 ³	99-1549 ³	99-1555 ³	99-1561 ³
99-1544 ³	99-1550 ³	99-1556 ³	99-1562 ³
99-1545 ³	99-1551 ³	99-1557 ³	99-1563 ³



Model 246/56

Type: Pneudraulic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Inline & Offset Nose Assemblies

4mm	5mm	6mm	8mm	10mm
99-2528	99-2534	99-2540	99-2543	99-2546
99-2529	99-2535	99-2541	99-2544	99-2547
			99-1721DG ⁴	99-1758DG ⁴

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

¹ Requires Adapter Part Number 128279. No Stroke Limiter Needed
² Requires Adapter Part Number 119400-1 and Stroke Limiter Part Number 118362
³ Requires Adapter Part Number 117831 with Stroke Limiter Part Number 118362
⁴ Requires Adapter Part Number 122134. No Stroke Limiter Needed



Model 2480/A2480

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, and powerful, with an inline piston for longer life.

Standard Inline & Offset Nose Assemblies

4mm	5mm	6mm
99-2525	99-2531	99-2537
99-2526	99-2532	99-2538
99-3709 ¹	99-3710 ¹	99-3711 ¹
99-3709-1 ¹	99-3710-1 ¹	99-3711-1 ¹



Model 2502/A2502

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, with just one moving part for increased reliability, and an offset piston for limited clearance.

Standard Inline Nose Assemblies

4MM	5MM	6MM	8MM	10MM
99-2528	99-2534	99-2540	99-2543	99-2546
99-2529	99-2535	99-2541	99-2544	99-2547



Model 2503/A2503

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, with just one moving part for increased reliability, and an offset piston for limited clearance. Achieves the longest stroke available in this series of tooling.

Standard Inline Nose Assemblies

4MM	5MM	6MM	8MM	10MM
99-2528	99-2534	99-2540	99-2543	99-2546
99-2529	99-2535	99-2541	99-2544	99-2547



Model 2580-12/ A2580-12

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight and powerful, with an inline piston for longer life

Standard Inline Nose Assemblies

4MM	5MM	6MM	8MM	10MM
99-2528	99-2534	99-2540	99-2543	99-2546
99-2529	99-2535	99-2541	99-2544	99-2547

¹ Requires Adapter Part Number 128279. No Stroke Limiter Needed

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.



Model 206-375/ A206-375

Type: Hydraulic

Applications: Limited clearance

Features: Uses offset nose assembly for added clearance, and only one moving part for minimum maintenance. Hoses can be repositioned.

Standard Offset Nose Assemblies

4MM	5MM	6MM
99-3709	99-3710	99-3711
99-3709-1	99-3710-1	99-3711-1



Model 208-625/ A208-625

Type: Hydraulic

Applications: Limited clearance

Features: Offset piston for added tool clearance, and only one moving part for minimum maintenance. Hoses can be repositioned.

Standard Offset Nose Assemblies

4MM	5MM	6MM	8MM	10MM
99-1543 ⁵	99-1549 ⁵	99-1555 ⁵	99-1561 ⁵	99-1758DG
99-1544 ⁵	99-1550 ⁵	99-1556 ⁵	99-1562 ⁵	
99-1545 ⁵	99-1551 ⁵	99-1557 ⁵	99-1563 ⁵	99-1721DG



Model 700/A700

Type: Hydraulic

Applications: Limited clearance

Features: Built in nose assembly for convenience and dependability, in an extremely small package.

Model 700 Series Eccentric Tooling

4MM	5MM	6MM	8MM	10MM
	M705LGP AM705LGP	M706LGP AM706LGP	M708LGP AM708LGP	M710LGP AM710LGP



Model 7352

Type: Hydraulic

Applications: Limited clearance

Features: Close center to edge clearance using standard 1/8" - 1/4" nose assemblies.

Standard Inline & Offset Nose Assemblies

4MM	5MM	6MM
99-2525	99-2531	99-2537
99-2526	99-2532	99-2538

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

⁵ Requires Adapter Part Number 125770. No Stroke Limiter Needed

Nose Assembly Specifications

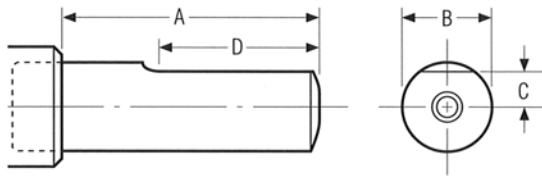


Figure 1

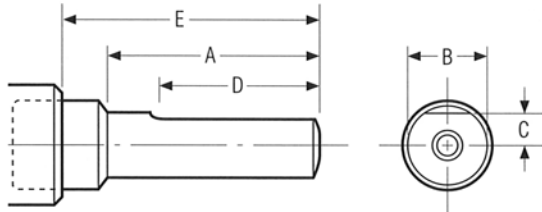


Figure 2

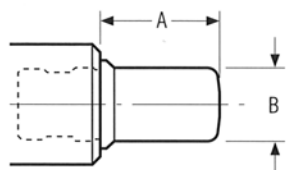


Figure 3

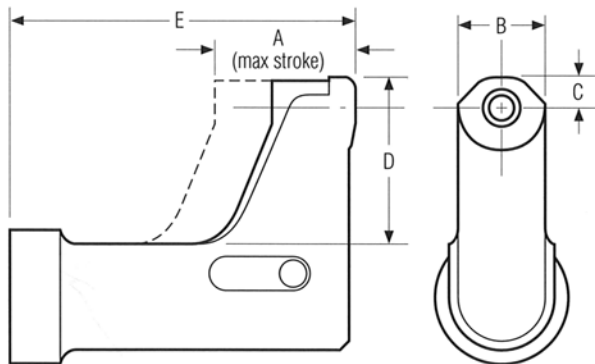


Figure 4

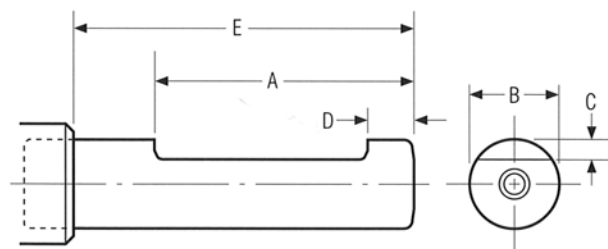


Figure 5

4mm Diameter (Dimensions in millimeters)

Nose Assy	Fig	Flats	A	B	C	D	E
99-1543	3	0	5	22			
99-1544	3	0	15	22			
99-1545	3	0	30	22			
99-2525	2	1	29	16	7	28	47
99-2526	2	1	92	16	7	91	110
99-2528	2	1	30	16	7	36	56
99-2529	2	1	94	16	7	99	119
99-3706	4	0	34	23	9	25	65
99-3706-1	4	0	34	23	9	41	85

5mm Diameter (Dimensions in millimeters)

Nose Assy	Fig	Flats	A	B	C	D	E
99-1549	3	0	5	22			
99-1550	3	0	15	22			
99-1551	3	0	30	22			
99-2531	2	1	29	18	8	28	46
99-2532	2	1	91	18	8	92	110
99-2534	2	1	32	18	8	34	55
99-2535	2	1	95	18	8	98	118
99-3707	4	0	36	23	9	25	66
99-3707-1	4	0	36	23	9	41	86

6mm Diameter (Dimensions in millimeters)

Nose Assy	Fig	Flats	A	B	C	D	E
99-1555	3	0	5	22			
99-1556	3	0	15	22			
99-1557	3	0	30	22			
99-2537	1	1	47	19	9	30	
99-2538	1	1	110	19	9	93	
99-2540	2	1	32	19	9	34	55
99-2541	2	1	97	19	9	98	118
99-3708	4	0	36	23	9	25	66
99-3708-1	4	0	36	23	9	41	86

Nose Assembly Specifications

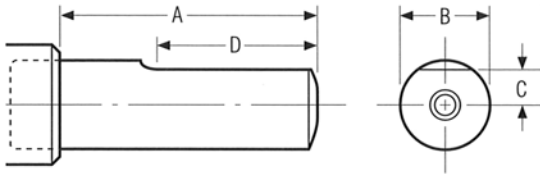


Figure 1

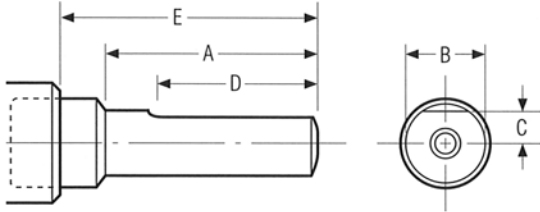


Figure 2

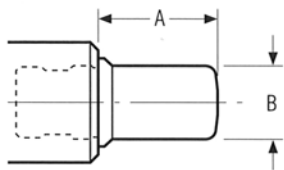


Figure 3

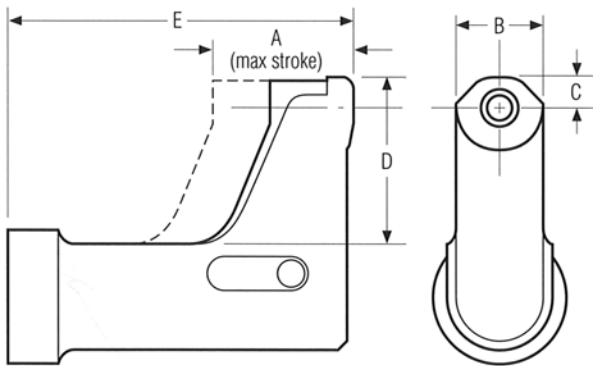


Figure 4

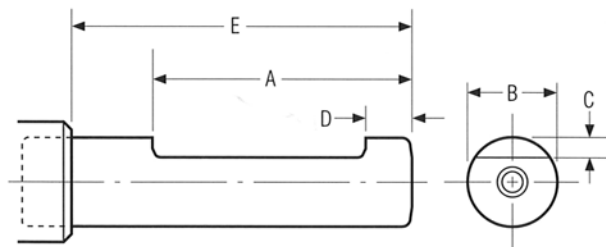


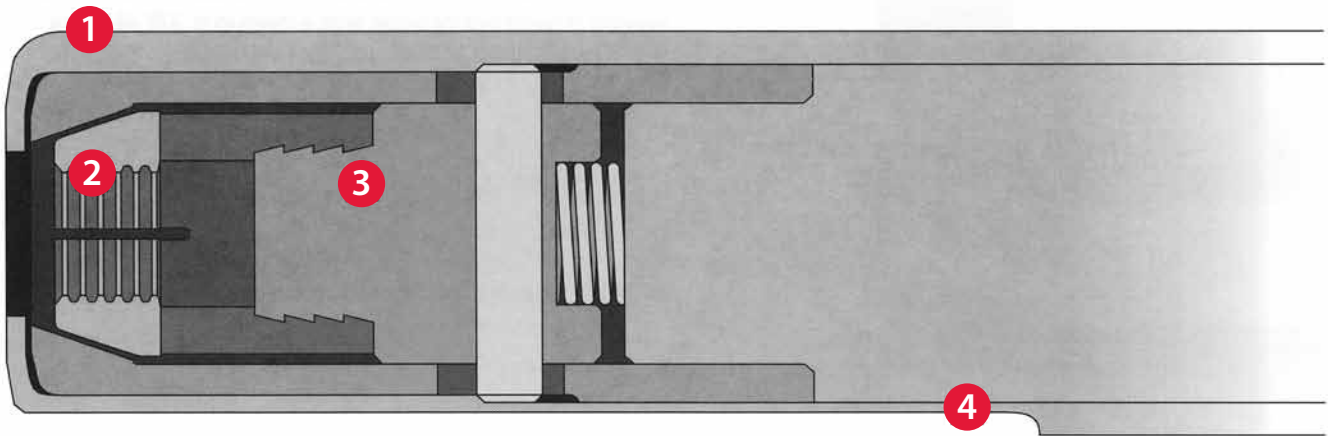
Figure 5

8mm Diameter (Dimensions in millimeters)

Nose Assy	Fig	Flats	A	B	C	D	E
99-1561	3	0	5	22			
99-1562	3	0	15	22			
99-1563	3	0	30	22			
99-2543	2	1	36	23	11	37	56
99-2544	2	1	100	23	11	100	119

10mm Diameter (Dimensions in millimeters)

Nose Assy	Fig	Flats	A	B	C	D	E
99-1758DG	4	0	55	29	12	25	79
99-2546	1	1	64	27	12	46	
99-2547	1	1	119	27	12	102	



The Pull-In system is an alternative to the hammer drive method of installing fasteners in interference fit holes. Pull-In refers to an innovative, two stage fastener installation operation. Using a special Pull-In nose assembly, Huckbolt pins are first pulled into an interference fit hole without breaking off the pintail. The collar is then placed on the pin and using standard Huck installation tool, the collar is swaged and the pintail is broken off.

Compare the potential for structural damage between the Pull-In system and conventional impact fastening. Since LGP Lockbolts are pulled into place, not pushed, there is less chance for damage to the structure, reducing the incidence of rework and replacements. Chuck jaws accurately and quietly pull the fastener into position, reducing both vibration and damage potential. The operator has more control with less stress, less noise, and less fatigue.

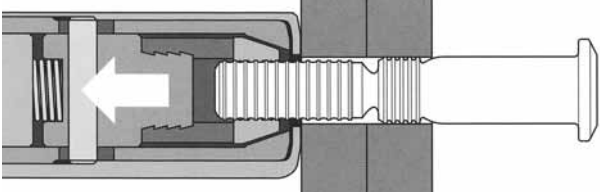
A minimum of .375 of pintail must be exposed to use the Pull-In system. Certain requirements related to material thickness, pin break, and tool pull capacity must be met as well.

- 1 Anvil is designed to guide the fastener pintail into the jaw.
- 2 Chuck jaws have been repositioned forward to improve engagement on fastener pintail.
- 3 Barbed jaw guide. During fastener insertion cycle the jaws grip the pintail firmly. After completing the cycle, the jaws release the pintail.
- 4 Flats enable the operator to get to those hard to reach spots in limited clearance applications.

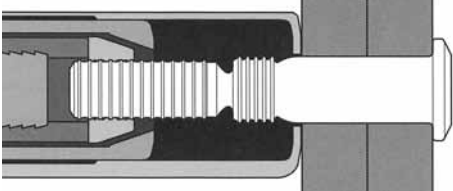
Note: For your specific Pull-In installation application, contact your Huck representative for assistance.

Installation Sequence

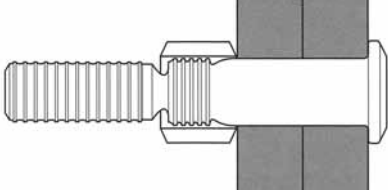
- 1**



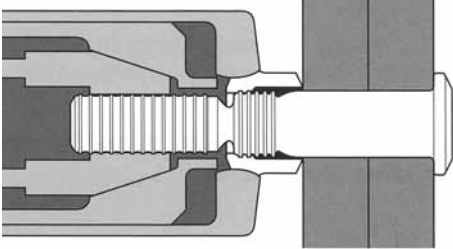
The pin is inserted from one side of the work surface. The Pull-In nose assembly is placed over the pintail. Note: a minimum of .375" (4 locking grooves) must protrude to ensure adequate pintail-chuck jaw engagement.
- 2**



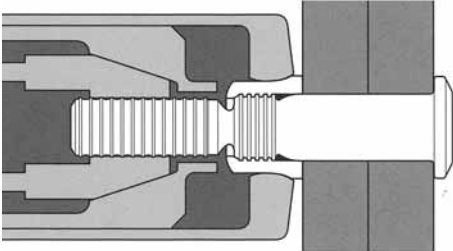
The tool trigger is depressed and the pin is pulled into the work piece.
- 3**



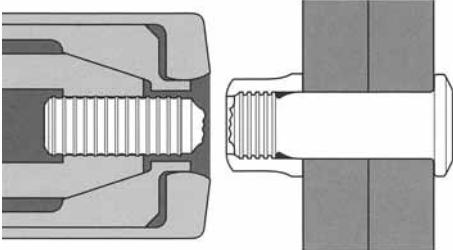
The Pull-In nose assembly is removed and a collar is placed over the pintail.
- 4**



The Huck installation tool with a standard (swage) nose assembly is placed onto the fastener. Chuck jaws, housed in the nose assembly, grip the pintail grooves. The installation tool trigger is depressed, actuating the tool pull piston.
- 5**



The pull piston and chuck jaws move rearward while the nose assembly outer sleeve, housing a swage die, moves forward toward the work surface.
- 6**



The pin breaks at a predetermined location providing a flush installation with no need for additional finishing work.

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

LGP Lockbolt Pull-In Fastener Insertion System

Specifications

Note: The Pull-In system is affected by several variables, pinbreak, tool pull capacity, interference fit dimensions for hole, and grip. The following pinbreak information is for titanium (V) material fasteners only.

Minimum Pinbreak Load

Use the correct pinbreak in the tooling computation to have the fastener properly installed when using a swage nose assembly for the final installation step.

Diameter	Fastener	Mm. Pinbreak lbs.
5/32"	LGPL2S(-)V05(-)	1600
	LGPL4S(-)V05(-)	1600
3/16"	LGPL2S(-)V06(-)	2200
	LGPL4S(-)V06(-)	2200
1/4"	LGPL2S(-)V08(-)	3400
	LGPL4S(-)V08(-)	3400
5/16"	LGPL2S(-)V10(-)	5350
	LGPL4S(-)V10(-)	5350
3/8"	LGPL2S(-)V12(-)	7700
	LGPL4S(-)V12(-)	7700

Hydraulic Tool Pull Capacities

Tool	Pull Capacity	Operating Pressure
206-375	5875	5400
208-625	10071	5400
2502	7019	5400
2503	7019	5400
2502	10399	8000
2503	10399	8000
2480	5710	8400
2580	12047	5700

Pneudraulic Tool Pull Capacities

Tool	Pull Capacity	Operating Pressure
2022	3477	90
244	4606	90
245/255	7750	90
246/257	9986	90
247/257	5282	90

Note: Minimum pinbreak and tool capacity are used to calculate the air and hydraulic pressures that the tools must be set at to pull in the fastener and not break the pintail off.

Hydraulic Tooling

To select the proper Powerig hydraulic unit pull pressure setting for hydraulic tools, use the following formula:

$$\frac{\text{min pinbreak} \times .85}{\text{tool pull capacity}} \times \text{operating pressure} = \text{pressure setting}$$

Example:

2400 tool pull capacity = 5710 lbs. at 8400 psi

3/16 LGPL2S(-)V06(-) fastener = 2200 min. pinbreak

$$\frac{2200 \times .85}{5710} \times 8400 = 2750 \text{ pull pressure}$$

Use T124833 set-up gauge, with manual, to set the proper pull pressure.

Pneudraulic Tooling

To select the proper pre-set regulator for pneudraulic tools, use the following formula:

$$\frac{\text{min pinbreak} \times .85}{\text{tool pull capacity}} \times 90 = \text{pre-set regulator size}$$

Example:

245 tool pull capacity = 7500 lbs. at 90 psi

3/16 LGPL2S(-)V06(-) fastener = 2200 min. pinbreak

$$\frac{2200 \times .85}{7500} \times 90 = 22.44$$

Air Pressure Regulators for Pneudraulic Tooling

Regulator Part No.	Calculated Preset Value (PSI)	Regulator Part No.	Calculated Preset Value (PSI)
127308-1	12 +/-1	127308-9	54 +/-3
127308-2	16 +/-1	127308-10	61 +/-3
127308-3	22 +/-2	127308-11	68 +/-3
127308-4	26 +/-2	127308-12	75 +/-3
127308-5	32 +/-2	127308-13	82 +/-3
127308-6	38 +/-2	127308-14	89 +/-3
127308-7	43 +/-2	127308-15	97 +/-3
127308-8	48 +/-2	127308-16	58 +/-2

Note: For more information on using the Pull-In system and detailed specifications on minimum pinbreaks for other material fasteners, consult your local HUCK representative.

*Note: Special noses for clearance applications may be available.
Contact your HUCK representative for more information.*

Tooling Selection

Tool	5/32	3/16	1/4	5/16	3/8
2480	99-1825	99-1826	9-1827		
	99-1825-1	99-1826-1	99-1827-1		
	99-1833 ²	99-1834 ²	99-1835 ²		
	99-1833-1 ²	99-1834-1 ²	99-1835-1 ²	99-1835-1	
206-375	99-1833	99-1834	99-1835		
	99-1833-1	99-1834-1	99-1835-1		
206-625	99-1833	99-1834	99-1835	99-1835	
	99-1833-1	99-1834-1	99-1835-1		
208-625	99-1833 ⁴	99-1834 ⁴	99-1835 ⁴	99-1836	99-1837
	99-1833-1 ⁴	99-1834-1 ⁴	99-1835-1 ⁴		
2502-625	99-1828	99-1829	99-1830	99-1831	99-1832
	99-1833 ³	99-1834 ³	99-1835 ³		
	99-1833-1 ³	99-1834-1 ³	99-1835-1 ⁵	99-1836 ⁵	99-1837 ⁵
2503-875	99-1828	99-1829	99-1830	99-1831	99-1832
	99-1828-1	99-1829-1	99-1830-1	99-1831-1	99-1832-1
	99-1833 ³	99-1834 ³	99-1835 ³		
	99-1833-1 ³	99-1834-1 ³	99-1835-1 ³	99-1836 ⁵	99-1837 ⁵
2022	99-1825	99-1826	99-1827		
	99-1825-1	99-1826-1	99-1827-1		
	99-1833 ¹	99-1834 ¹	99-1835 ¹		
	99-1833-1 ¹	99-1834-1 ¹	99-1835-1 ¹		
244	99-1825	99-1826	99-1827		
	99-1825-1	99-1826-1	99-1827-1		
	99-1833 ¹	99-1834 ¹	99-1835 ¹		
	99-1833-1 ¹	99-1834-1 ¹	99-1835-1 ¹		
245/255	99-1828	99-1829	99-1830	99-1831	99-1832
	99-1828-1	99-1829-1	99-1830-1	99-1831-1	99-1832-1
	99-1833	99-1834	99-1835		
	99-1833-1	99-1834-1	99-1835-1	99-1836 ⁵	99-1837 ⁵
246/256	99-1828	99-1829	99-1830	99-1831	99-1832
	99-1828-1	99-1829-1	99-1830-1	99-1831-1	99-1832-1
	99-1833	99-1834	99-1835		
	99-1833-1	99-1834-1	99-1835-1	99-1836 ⁵	99-1837 ⁵
247/257	99-1828	99-1829	99-1830	99-1831	99-1832
	99-1828-1	99-1829-1	99-1830-1	99-1831-1	99-1832-1
	99-1833	99-1834	99-1835		
	99-1833-1 ³	99-1834-1 ³	99-1835-1 ³	99-1836	99-1837

Note: Special noses for clearance applications may be available.
Contact your HUCK representative for more information.

1 Requires adapter part number 122140
2 Requires adapter part number 128279
3 Requires adapter part number 119400-1
4 Requires adapter part number 122477
5 Requires adapter part number 122134
6 Requires adapter part number 120750

LGP Lockbolt Pull-In Fastener Insertion System

Nose Assembly Specifications

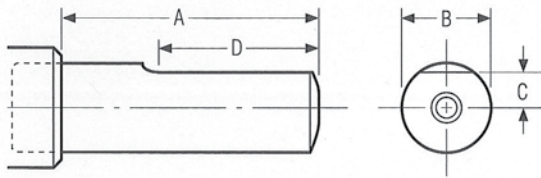


Figure 1

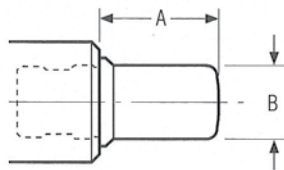


Figure 2

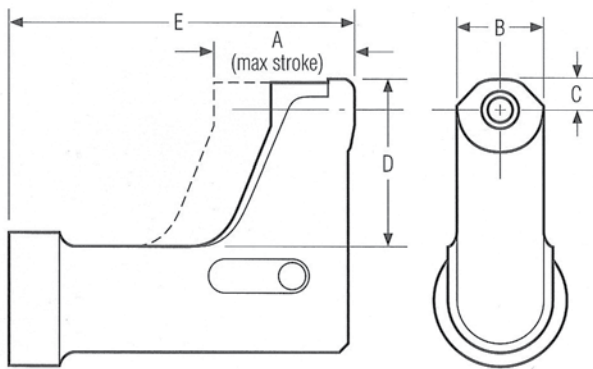


Figure 3

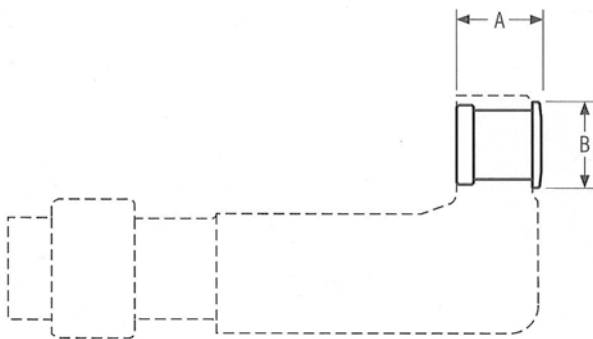


Figure 4 – shown with required adapter part number 120750

5/32" Diameter

Nose Assy	Fig	Flats	A	B	C	D
99-1825	1	1	3.24	.64	.29	1.25
99-1825-1	1	1	5.49	.64	.29	3.87
99-1828	1	1	3.74	.64	.29	1.25
99-1828-1	1	1	5.99	.64	.29	4.24
99-1833	3	0	1.63	.78	.33	1.08
99-1833-1	3	0	1.63	.85	.33	1.71

3/16" Diameter

Nose Assy	Fig	Flats	A	B	C	D
99-1826	1	1	3.24	.71	.32	1.25
99-1826-1	1	1	5.49	.71	.32	3.87
99-1829	1	1	3.74	.71	.32	1.25
99-1829-1	1	1	5.99	.71	.32	4.24
99-1834	3	0	1.63	.78	.33	1.08
99-1834-1	3	0	1.63	.85	.33	1.71

1/4" Diameter

Nose Assy	Fig	Flats	A	B	C	D
99-1827	1	1	3.24	.75	.34	1.25
99-1827-1	1	1	5.49	.75	.34	3.87
99-1830	1	1	3.74	.75	.34	1.25
99-1830-1	1	1	5.99	.75	.34	4.24
99-1835	3	0	1.63	.78	.33	1.08
99-1835-1	3	0	1.63	.85	.33	1.71

5/16" Diameter

Nose Assy	Fig	Flats	A	B	C	D
99-1813	4	0	.10	.88		
99-1831	1	1	3.74	.92	.43	1.25
99-1831-1	1	1	5.99	.92	.43	4.24
99-1835-1	3	0	1.80	1.13	.46	1.08

3/8" Diameter

Nose Assy	Fig	Flats	A	B	C	D
99-1832	1	1	3.74	1.06	.48	1.25
99-1832-1	1	1	5.99	1.06	.48	4.24
99-1837	3	0	1.80	1.13	.48	1.08

Note: Special noses for clearance applications may be available.
Contact your HUCK representative for more information.

End of Section 5

*Note: Special noses for clearance applications may be available.
Contact your HUCK representative for more information.*

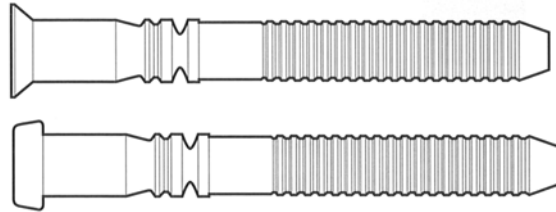
NAS Shear Lockbolt Fasteners



Designed for use in high-strength aerospace applications, this Huckbolt Fastener is readily adaptable to high volume production methods. Common applications include primary airframes, main spars, and engine mounts.

There is a wide variety of collar configurations and materials not shown. The tooling shown in this section will install all NAS Shear pull-type lockbolts.

NOTE: These fasteners are available in Stump Type (without pintail) and are intended for hammer drive installation or automated installation. Contact Huck Installation Equipment Division for information on hammer driving and tooling requirements.



Shear pull-type lockbolt fasteners, flush and protruding heads.



Collar for shear lockbolt fasteners.

Includes part numbers:

NAS1414-1422	NAS2406-2412	NAS7014-7024
NAS1424-1432	NAS2506-2512	NAS7024-7032
NAS1436-1442	NAS7004-7012	NAS7024-7042
NAS1446-1452		



Model 244

Type: Pneudraulic

Applications: High speed production

Features: Lightweight tool for fast, uniform installations. Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Inline & Offset Nose Assemblies

1/8"	5/32"	3/16"
99-2651	99-2549S 99-2550S	99-2555 99-2556
	99-3703S ¹ 99-3703S-1 ¹	99-3704 ¹ 99-3704-1 ¹



Model 244OS

Type: Pneudraulic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Inline Nose Assemblies

5/32"	3/16"
99-3703S 99-3703S-1	99-3704 99-3704-1



Model 245/255

Type: Pneudraulic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Inline & Offset Nose Assemblies

5/32"	3/16"	1/4"	5/16"
99-2552S 99-2553S 99-3703S ² 99-3703S-1 ²	99-2558 99-2559 99-2954 99-3704 ² 99-3704-1 ²	99-2564 99-2565 99-2952 99-3705 ² 99-3705-1 ²	99-2567 99-2568 99-2953 99-1720DG ⁴

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

¹ Requires Adapter Part Number 128279. No Stroke Limiter Needed
² Requires Adapter Part Number 119400-1 and Stroke Limiter Part Number 118362
⁴ Requires Adapter Part Number 122134. No Stroke Limiter Needed

NAS Shear Lockbolt Fasteners



Model 246/56

Type: Pneumatic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Inline & Offset Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"
99-2552S	99-2558	99-2564	99-2567	99-2570
99-2553S	99-2559	99-2565	99-2568	99-2571
	99-2954	99-2952	99-2953	99-2957
			99-1720DGC ⁴	99-1756DG ⁴



Model 2480/A2480

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, and powerful, with an inline piston for longer life.

Standard Inline & Offset Nose Assemblies

1/8"	5/32"	3/16"	1/4"
99-2654	99-2549S	99-2555	99-2561
	99-2550S	99-2556	99-2562
	99-3703S ¹	99-3704 ¹	
	99-3703S-1 ¹	99-3704-1 ¹	



Model 2502/A2502

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, with just one moving part for increased reliability, and an offset piston for limited clearance.

Standard Inline Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"
99-2552S	99-2558	99-2564	99-2567	99-2570
99-2553S	99-2559	99-2565	99-2568	99-2571
	99-2954	99-2952	99-2953	99-2957

¹ Requires Adapter Part Number 128279. No Stroke Limiter Needed
⁴ Requires Adapter Part Number 122134. No Stroke Limiter Needed

Note: Special noses for clearance applications may be available.
 Contact your HUCK representative for more information.



Model 2503/A2503

Type: Pneumatic

Applications: High speed production

Features: Small, lightweight, with just one moving part for increased reliability, and an offset piston for limited clearance. Achieves the longest stroke available in this series of tooling.

Standard Inline Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"
99-2552S	99-2558	99-2564	99-2567	99-2570
99-2553S	99-2559	99-2565	99-2568	99-2571
	99-2954	99-2952	99-2953	99-2957



2580-12 / A2580-12

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight and powerful, with an inline piston for longer life.

Standard Inline Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"
99-2552S	99-2558	99-2564	99-2567	99-2570
99-2553S	99-2559	99-2565	99-2568	99-2571
	99-2954	99-2952	99-2953	99-2957



Model 206-375/ A206-375

Type: Hydraulic

Applications: Limited clearance

Features: Uses offset nose assembly for added clearance, and only one moving part for minimum maintenance. Hoses can be repositioned.

Standard Offset Nose Assemblies

5/32"	3/16"	1/4"
99-3703S	99-3704	99-3705 ⁵
99-3703S-1	99-3704-1	99-3705-1 ⁵

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

⁵ Requires Adapter Part Number 125770. No Stroke Limiter Needed



Model 208-625/ A208-625

Type: Hydraulic

Applications: Limited clearance

Features: Offset piston for added tool clearance, and only one moving part for minimum maintenance. Hoses can be repositioned.

Standard Offset Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"
99-1506 ⁶	99-1508 ⁶	99-1510 ⁶	99-1537 ⁶	99-1756DG ⁷
99-1507 ⁶	99-1509 ⁶	99-1511 ⁶	99-1538 ⁶	
99-1528 ⁶	99-1529 ⁶	99-1530 ⁶	99-1720DG	



Model 700/A700

Type: Hydraulic

Applications: Limited clearance

Features: Built in nose assembly for convenience and dependability, in an extremely small package.

Model 700 Series Eccentric Tooling

3/16"	1/4"	5/16"	3/8"
706GP	708GP	710GP	712GP



Model 7352

Type: Hydraulic

Applications: Limited clearance

Features: Close center to edge clearance using standard 1/8" - 1/4" nose assemblies.

Standard Inline Nose Assemblies

1/8"	5/32"	3/16"	1/4"
99-2651	99-2549S 99-2550S	99-2555 99-2556	99-2561 99-2562

⁶ Requires Adapter Part Number 125770. No Stroke Limiter Needed
⁷ For 3/8" Diam. Fasteners, Remove Stroke Limiter, Replace Valve with Valve Part Number 120020

Note: Special noses for clearance applications may be available.
 Contact your HUCK representative for more information.

Nose Assembly Specifications

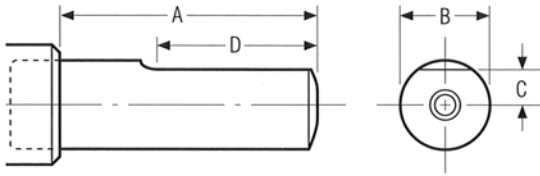


Figure 1

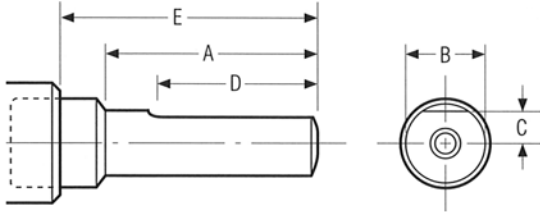


Figure 2

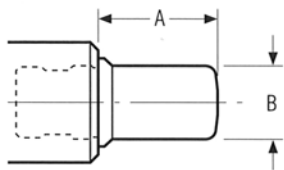


Figure 3

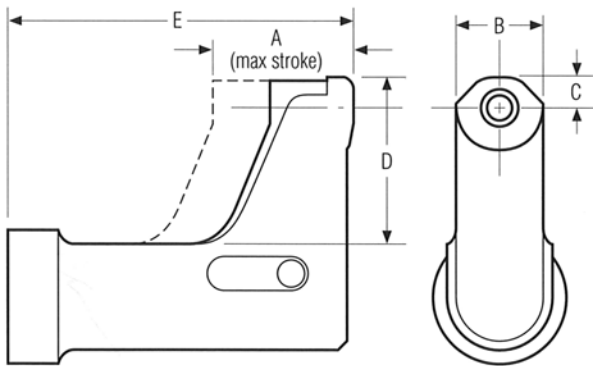


Figure 4

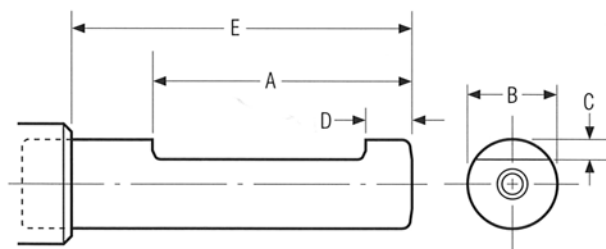


Figure 5

1/8" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-2561	1	2	1.94	.75	.33	1.25	

5/32" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1506	3	0	.14	.88			
99-1507	3	0	1.19	.75			
99-1528	3	0	.47	.75			
99-2549S	2	1	1.20	.64	.29	1.15	1.85
99-2550S	2	1	3.70	.64	.29	3.65	4.35
99-2552S	2	1	1.30	.64	.29	1.45	2.25
99-2553S	2	1	3.80	.64	.29	3.95	4.75
99-3703S	4	0	1.37	.91	.37	1.00	2.55
99-3703-1S	4	0	1.37	.91	.37	1.63	3.36

3/16" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1508	3	0	.19	.88			
99-1509	3	0	1.19	.75			
99-1529	3	0	.49	.75			
99-2555	2	1	1.25	.71	.32	1.20	1.85
99-2556	2	1	3.75	.71	.32	3.70	4.35
99-2558	2	1	1.30	.71	.32	1.45	2.20
99-2559	2	1	3.80	.71	.32	3.90	4.70
99-2954	5	0	2.84	.95	.42	.52	4.35
99-3704	4	0	1.41	.91	.37	1.00	2.59
99-3704-1	4	0	1.42	.91	.37	1.63	3.40

1/4" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1510	3	0	.19	.88			
99-1511	3	0	1.19	.75			
99-1530	3	0	.56	.75			
99-2561	1	1	1.85	.76	.34	1.20	
99-2562	1	1	4.35	.76	.34	3.75	
99-2564	1	1	2.20	.76	.34	1.38	
99-2565	2	1	3.85	.76	.34	3.95	4.65
99-2952	5	0	2.89	1.06	.30	.58	4.34
99-3705	4	0	1.41	.91	.37	1.00	2.59
99-3705-1	4	0	1.42	.91	.37	1.63	3.40

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

S - for use with shear fasteners

Nose Assembly Specifications

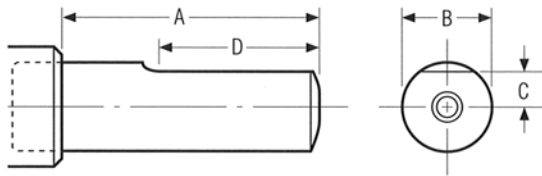


Figure 1

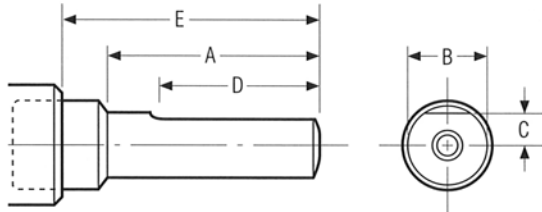


Figure 2

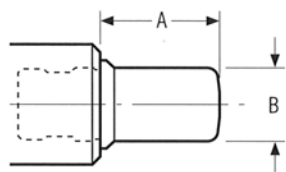


Figure 3

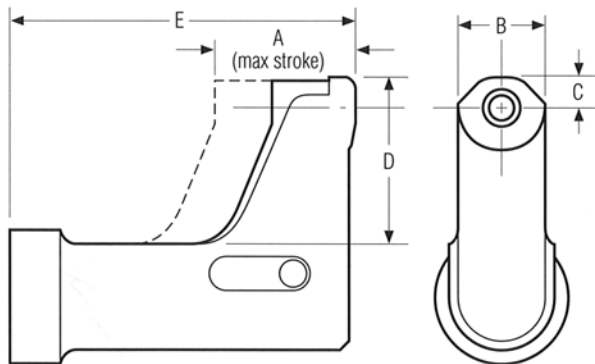


Figure 4

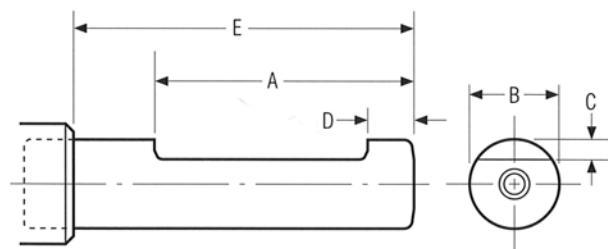


Figure 5

5/16" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1537	3	0	.19	.88			
99-1538	3	0	.60	.75			
99-1720DG	4	4	1.95	1.20	.50	1.13	3.33
99-2567	2	1	1.55	.92	.43	1.50	2.20
99-2568	2	1	4.05	.92	.43	4.00	4.70
99-2953	5	0	2.91	1.06	.34	.60	4.35

3/8" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1756DG	4	0	1.97	1.20	.51	1.14	3.34
99-2570	1	1	2.50	1.06	.48	1.95	
99-2571	1	1	4.70	1.06	.48	4.05	
99-2957	5	0	2.91	1.06	.34	.60	4.35

S - for use with shear fasteners

Note: Special noses for clearance applications may be available.
Contact your HUCK representative for more information.

End of Section 6

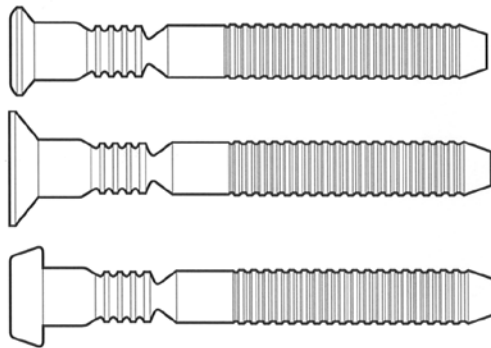
NAS Tension Lockbolt Fasteners



Designed for use in high-strength aerospace applications, this Huckbolt Fastener is readily adaptable to high volume production methods. Common applications include primary airframes, main spars, and engine mounts.

There is a wide variety of collar configurations and materials not shown. The tooling shown in this section will install all NAS Shear pull-type lockbolts.

NOTE: These fasteners are available in Stump Type (without pintail) and are intended for hammer drive installation or automated installation. Contact Huck Installation Equipment Division for information on hammer driving and tooling requirements.



Tension pull-type lockbolt fasteners, crown flush and protruding heads.



Collar for tension lockbolt fasteners.

Includes part numbers:

NAS1456-1462	NAS1525-1532	NAS2125-2132
NAS1465-1472	NAS1535-1542	NAS6935-6942
NAS1475-1482	NAS2005-2012	NAS6946-6952
NAS1516-1522	NAS2105-2112	NAS6955-6972



Model 244

Type: Pneudraulic

Applications: High speed production

Features: Lightweight tool for fast, uniform installations. Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Inline & Offset Nose Assemblies

1/8"	5/32"	3/16"
99-2651	99-2549T 99-2550T	99-2555 99-2556
	99-3703T ¹ 99-3703T-1 ¹	99-3704 ¹ 99-3704-1 ¹



Model 244OS

Type: Pneudraulic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners.

Standard Offset Nose Assemblies

5/32"	3/16"
99-3703T 99-3703T-1	99-3704 99-3704-1



Model 245/255

Type: Pneudraulic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Inline & Offset Nose Assemblies

5/32"	3/16"	1/4"	5/16"
99-2552T 99-2553T	99-2558 99-2559	99-2564 99-2565	99-2567 99-2568
99-3703T ² 99-3703T-1 ²	99-2954 99-3704 ² 99-3704-1 ²	99-2952 99-3705 ² 99-3705-1 ²	99-2953 99-1720DG ⁴

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

¹ Requires Adapter Part Number 128279. No Stroke Limiter Needed
² Requires Adapter Part Number 119400-1 and Stroke Limiter Part Number 118362
⁴ Requires Adapter Part Number 122134. No Stroke Limiter Needed



Model 246/56

Type: Pneumatic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Inline & Offset Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"
99-2552T	99-2558	99-2564	99-2567	99-2570
99-2553T	99-2559	99-2565	99-2568	99-2571
	99-2954	99-2952	99-2953	99-2957
			99-1720DGC ⁴	99-1756DG ⁴



Model 2480/A2480

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, and powerful, with an inline piston for longer life.

Standard Inline & Offset Nose Assemblies

1/8"	5/32"	3/16"	1/4"
99-2654	99-2549T	99-2555	99-2561
	99-2550T	99-2556	99-2562
	99-3703T ¹	99-3704 ¹	
	99-3703T-1 ¹	99-3704-1 ¹	



Model 2502/A2502

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, with just one moving part for increased reliability, and an offset piston for limited clearance.

Standard Inline Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"
99-2552T	99-2558	99-2564	99-2567	99-2570
99-2553T	99-2559	99-2565	99-2568	99-2571
	99-2954	99-2952	99-2953	99-2957

¹ Requires Adapter Part Number 128279. No Stroke Limiter Needed
⁴ Requires Adapter Part Number 122134. No Stroke Limiter Needed

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.



Model 2503/A2503

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, with just one moving part for increased reliability, and an offset piston for limited clearance. Achieves the longest stroke available in this series of tooling.

Standard Inline & Offset Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"
99-2552T	99-2558	99-2564	99-2567	99-2570
99-2553T	99-2559	99-2565	99-2568	99-2571
	99-2954	99-2952	99-2953	99-2957



Model 2580-12/ A2580-12

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight and powerful, with an inline piston for longer life

Standard Inline & Offset Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"
99-2552T	99-2558	99-2564	99-2567	99-2570
99-2553T	99-2559	99-2565	99-2568	99-2571
	99-2954	99-2952	99-2953	99-2957



Model 206-375/ A206-375

Type: Hydraulic

Applications: Limited clearance

Features: Uses offset nose assembly for added clearance, and only one moving part for minimum maintenance. Hoses can be repositioned.

Standard Offset Nose Assemblies

5/32"	3/16"	1/4"
99-3703T	99-3704	99-3705 ⁵
99-3703T-1	99-3704-1	99-3705-1 ⁵

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

5 For 1/4" Diam. Fasteners, Remove Stroke Limiter, Replace Valve with Valve Part Number 119422



Model 208-625/ A208-625

Type: Hydraulic

Applications: Limited clearance

Features: Offset piston for added tool clearance, and only one moving part for minimum maintenance. Hoses can be repositioned.

Standard Offset Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"
99-1506 ⁶	99-1508 ⁶	99-1510 ⁶	99-1537 ⁶	99-1756DG ⁷
99-1507 ⁶	99-1509 ⁶	99-1511 ⁶	99-1538 ⁶	
99-1528 ⁶	99-1529 ⁶	99-1530 ⁶	99-1720DG	



Model 700/A700

Type: Hydraulic

Applications: Limited clearance

Features: Built in nose assembly for convenience and dependability, in an extremely small package.

Model 700 Series Eccentric Tooling

3/16"	1/4"	5/16"	3/8"
706GP	708GP	710GP	712GP



Model 7352

Type: Hydraulic

Applications: Limited clearance

Features: Close center to edge clearance using standard 1/8" - 1/4" nose assemblies.

Standard Inline Nose Assemblies

1/8"	5/32"	3/16"	1/4"
99-2651	99-2549T 99-2550T	99-2555 99-2556	99-2561 99-2562

⁶ Requires Adapter Part Number 125770. No Stroke Limiter Needed
⁷ For 3/8" Diam. Fasteners, Remove Stroke Limiter, Replace Valve with Valve Part Number 120020

Note: Special noses for clearance applications may be available.
 Contact your HUCK representative for more information.

Nose Assembly Specifications

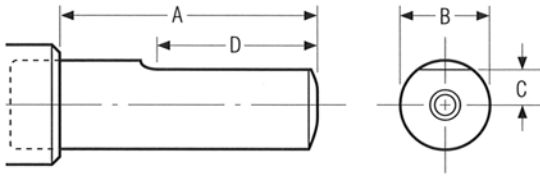


Figure 1

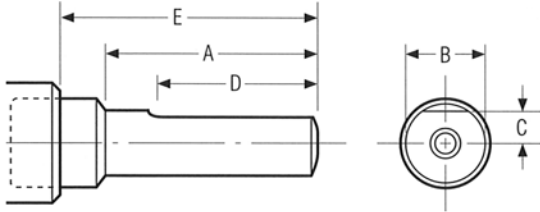


Figure 2

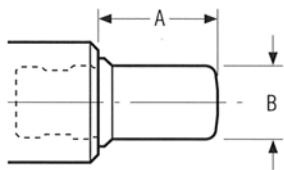


Figure 3

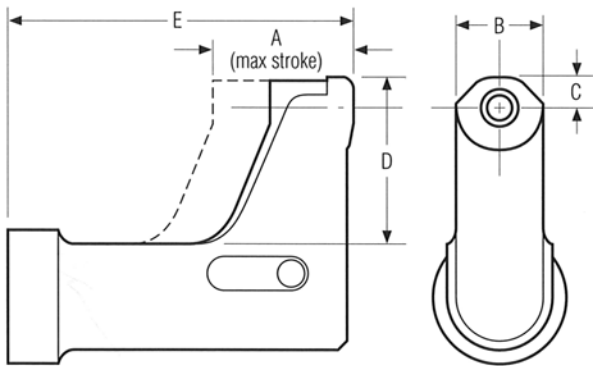


Figure 4

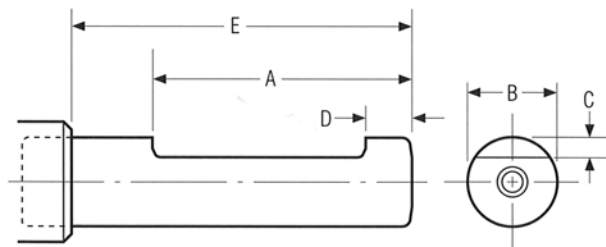


Figure 5

1/8" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-2651	1	1	3.00	.59	.27	1.37	

5/32" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1506	3	0	.14	.88			
99-1507	3	0	1.19	.75			
99-1528	3	0	.47	.75			
99-2549T	2	1	1.20	.64	.29	1.15	1.85
99-2550T	2	1	3.70	.64	.29	3.65	4.35
99-2552T	2	1	1.30	.64	.29	1.45	2.25
99-2553T	2	1	3.80	.64	.29	3.95	4.75
99-3703T	4	0	1.37	.91	.37	1.00	2.55
99-3703-1	4	0	1.37	.91	.37	1.63	3.36

3/16" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1508	3	0	.19	.88			
99-1509	3	0	1.19	.75			
99-2555	2	1	1.25	.71	.32	1.20	1.85
99-2556	2	1	3.75	.71	.32	3.70	4.35
99-2558	2	1	1.30	.71	.32	1.45	2.20
99-2559	2	1	3.80	.71	.32	3.90	4.70
99-2954	5	0	2.84	.95	.42	.52	4.35
99-3704	4	0	1.41	.91	.37	1.00	2.59
99-3704-1	4	0	1.42	.91	.37	1.63	3.40

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

T - for use with tension fasteners

Nose Assembly Specifications

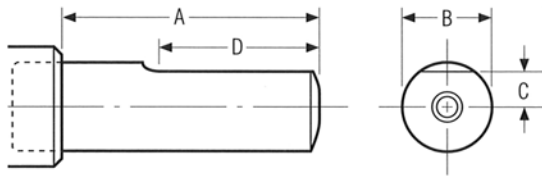


Figure 1

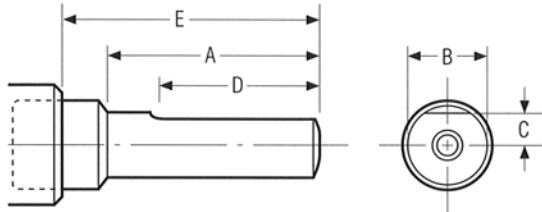


Figure 2

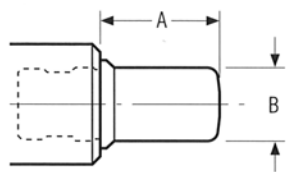


Figure 3

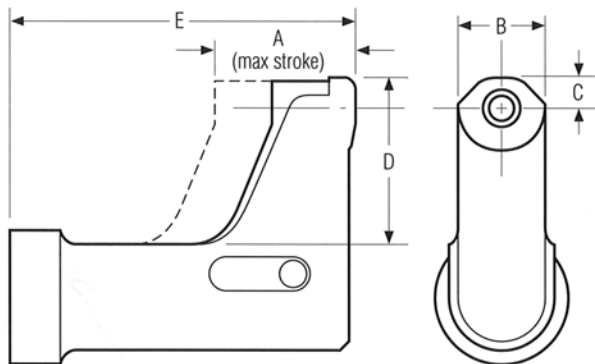


Figure 4

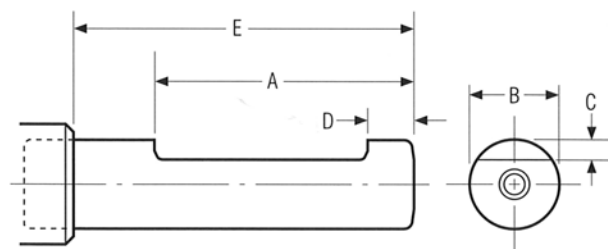


Figure 5

1/4" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1510	3	0	.19	.88			
99-1511	3	0	1.19	.75			
99-1530	3	0	.56	.75			
99-2561	1	1	1.85	.76	.34	1.20	
99-2562	1	1	4.35	.76	.34	3.75	
99-2564	1	1	2.20	.76	.34	1.38	
99-2565	2	1	3.85	.76	.34	3.95	4.65
99-2952	5	0	2.89	1.06	.30	.58	4.34
99-3705	4	0	1.41	.91	.37	1.00	2.59
99-3705-1	4	0	1.42	.91	.37	1.63	3.40

5/16" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1537	3	0	.19	.88			
99-1538	3	0	.60	.75			
99-1720DG	4	0	1.95	1.20	.50	1.13	3.33
99-2567	2	1	1.55	.92	.43	1.50	2.20
99-2568	2	1	4.05	.92	.43	4.00	4.70
99-2953	5	0	2.91	1.06	.34	.60	4.35

3/8" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1756	4	0	1.97	1.20	.51	1.14	3.34
99-2570	1	1	2.50	1.06	.48	1.95	
99-2571	1	1	4.70	1.06	.48	4.05	
99-2957	5	0	2.91	1.06	.34	.60	4.35

T - for use with tension fasteners

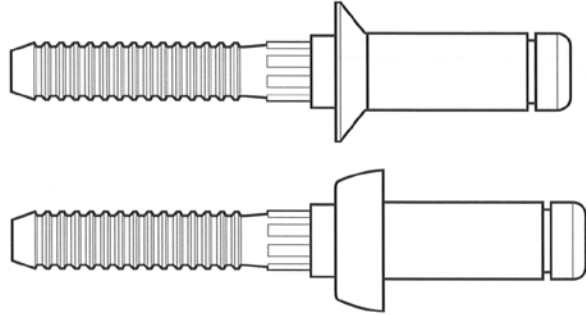
Note: Special noses for clearance applications may be available.
Contact your HUCK representative for more information.

End of Section 7

Double Action Blind Bolt Fasteners



The Blind Bolt fastener is designed for highly-loaded structural applications for aircraft, missiles, and other aerospace vehicles. Due to its high vibration resistance, it performs flawlessly in applications such as wing flaps and landing gear and engine inlets.



Double Action Blind Bolt fastener, with flush and protruding heads.

Includes part numbers:

NASM90353	NASM21141	BP-EU	4B100-EU
NASM90354	BP-T	B100-EU	7B100-EU
NASM21140	B100-T	4B100-T	



Model 200

Type: Pneudraulic

Applications: Production

Features: Double action tool for blind bolts and rivet installations.

Standard Inline Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"
99-600	99-589			
99-600-1	99-589-1			

Nose Assembly Specifications

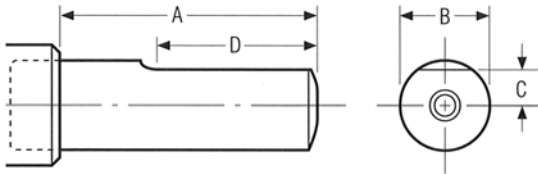


Figure 1

5/32" Diameter

Nose Assy	Fig	Flats	A	B	C	D
99-600	1	1	2.12	.88	.31	1.38
99-600-1	1	1	6	.88	.31	5.78

3/16" Diameter

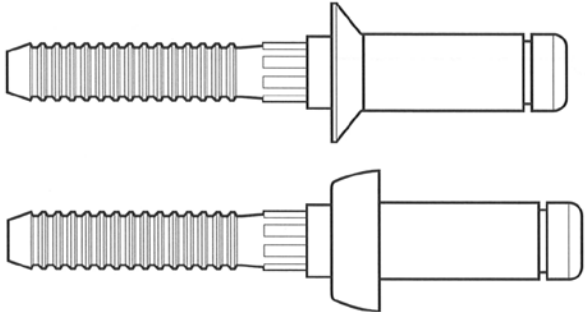
Nose Assy	Fig	Flats	A	B	C	D
99-589	1	1	2.12	.88	.31	1.38
99-589-1	1	1	6.00	.94	.31	5.78

UNIMATIC® Single Action Blind Bolt Fasteners



Used in such critical areas as jet engine inlets, Unimatic Blind Bolt fastener's wide blind side footprint ensures joint integrity and enhanced fatigue life. Use with confidence in general design applications, such as thin or thick sheet stackups. Unimatic Blind Bolt fasteners provide vibration resistant installations with positive locking FOD free mechanically locked collar.

NOTE: All single action blind bolt part numbers are not included in the above list, however, the tooling in this section will install all single action blind bolts.



UNIMATIC Blind Bolt fastener, with flush and protruding heads.

Includes part numbers:

- | | | |
|------------|------------|------------|
| NASM90353S | OSB100-T | OUBP-EU |
| UB130-MV | NASM90353U | OUB100-T |
| SB100-EU | UB100-EV | NASM90354S |
| S4B100-T | UB100-EU | UB130-EV |
| NASM90354U | S7B100-T | OSB100-EU |
| SB100-EV | NASM21140S | S7B100-EU |
| OUB100-EU | UBP-EV | NASM21140U |
| SB100-EU | SBP-EU | SBP-EV |
| NASM21141S | UB100-EU | UBP-EU |
| NASM21141U | OSB100-EU | OSBP-EU |
| SBP-T | OUB100-EU | OUBP-EU |
| UBP-T | SBP-EU | UB100-MV |
| OSBP-T | UBP-EU | UBP-MV |
| OUBP-T | OSBP-EU | |



Model 2025

Type: Pneudraulic

Applications: High production

Features: Optimum stroke for one cycle installation.

Standard Inline & Offset Nose Assemblies

1/8"	5/32"	3/16"	1/4"
99-2725	99-2701	99-2707	99-2713
99-2726	99-2702	99-2708	99-2714
99-3715 ¹	99-3712 ¹	99-3713 ¹	99-3714 ¹
99-3715-1 ¹	99-3712-1 ¹	99-3713-1 ¹	99-3714-1 ¹



Model 244

Type: Pneudraulic

Applications: High speed production

Features: Lightweight tool for fast, uniform installations. Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Offset Nose Assemblies

1/8"	5/32"	3/16"
99-3715 ¹	99-3712 ¹	99-3713 ¹
99-3715-1 ¹	99-3712-1 ¹	99-3713-1 ¹



Model 244OS

Type: Pneudraulic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners.

Standard Offset Nose Assemblies

1/8"	5/32"	3/16"
99-3715	99-3712	99-3713
99-3715-1	99-3712-1	99-3713-1

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

¹ Requires Adapter Part Number 128279. No Stroke Limiter Needed



Model 245/255

Type: Pneudraulic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Inline & Offset Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"
99-2704	99-2710	99-2716	99-2719	99-2722
99-2705	99-2711	99-2717	99-2720	99-2723
99-3712 ²	99-3713 ²	99-3714 ²		
99-3712-1 ²	99-3713-1 ²	99-3714-1 ²		
99-1513 ³	99-1514 ³	99-1515 ³		
99-1520 ³	99-1521 ³	99-1522 ³		



Model 246/56

Type: Pneudraulic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Inline Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"
99-2704	99-2710	99-2716	99-2719	99-2722
99-2705	99-2711	99-2717	99-2720	99-2723



Model 2480/A2480

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, and powerful, with an inline piston for longer life.

Standard Inline & Offset Nose Assemblies

1/8"	5/32"	3/16"	1/4"
9-2725	99-2701	99-2707	99-2713
99-2726	99-2702	99-2708	99-2714
99-3715 ¹	99-3712 ¹	99-3713 ¹	99-3714 ¹
99-3715-1 ¹	99-3712-1 ¹	99-3713-1 ¹	99-3714-1 ¹



Model 2502/A2502

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, with just one moving part for increased reliability, and an offset piston for limited clearance.

Standard Inline Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"
9-2704	99-2710	99-2716	99-2719	99-2722
99-2705	99-2711	99-2717	99-2720	99-2723

1 99-3700 Series Nose Assemblies require Part Number 128279. No Stroke Limiter needed
 2 99-3700 Series Nose Assemblies requires Adapter Part Number 119400-1 and Stroke Limiter Part Number 118362
 3 99-1500 Series Nose Assemblies require Adapter Part Number 117831 or 120804 with Stroke Limiter Part Number 118362

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.



Model 2503/A2503

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, with just one moving part for increased reliability, and an offset piston for limited clearance. Achieves the longest stroke available in this series of tooling.

Standard Inline Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"
99-2704	99-2710	99-2716	99-2719	99-2722
99-2705	99-2711	99-2717	99-2720	99-2723



Model 2580-12/ A2580-12

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight and powerful, with an inline piston for longer life.

Standard Inline Nose Assemblies

5/32"	3/16"	1/4"	5/16"	3/8"
99-2704	99-2710	99-2716	99-2719	99-2722
99-2705	99-2711	99-2717	99-2720	99-2723



2620-PT/A2620PT 2620-PT-15

Type: Hydraulic

Applications: High volume production

Features: Optimum stroke for one cycle installations and a single moving part, requiring minimum maintenance.

Standard Inline Nose Assemblies

1/4"	5/16"	3/8"	7/16"	1/2"
			99-2798	99-2799

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.



Model 206-375/ A206-375

Type: Air over hydraulic powered

Applications: Limited clearance

Features: Uses offset nose assembly for added clearance, and only one moving part for minimum maintenance. Hoses can be repositioned.

Standard Offset Nose Assemblies

5/32"	3/16"	1/4"
99-3712	99-3713	99-3714
99-3712-1	99-3713-1	99-3714-1



Model 7352

Type: Air over hydraulic powered

Applications: Limited clearance

Features: Close center to edge clearance using standard 1/8" - 1/4" nose assemblies.

Standard Inline Nose Assemblies

5/32"	3/16"	1/4"
99-2701	99-2707	99-2713
99-2702	99-2708	99-2714



Model 700/A700

Type: Air over hydraulic powered

Applications: Limited clearance

Features: Built in nose assembly for convenience and dependability, in an extremely small package.

Model 700 Series Eccentric Tooling

5/32"	3/16"	1/4"	5/16	3/8
705BB	706BB	708BB	710BB	712BB

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

Nose Assembly Specifications

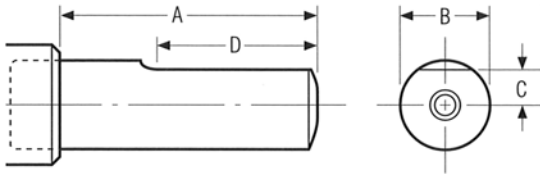


Figure 1

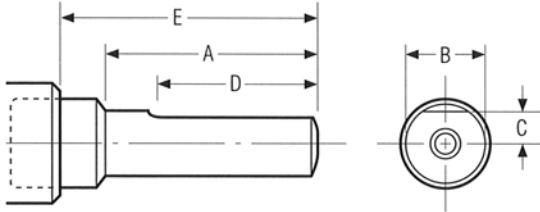


Figure 2

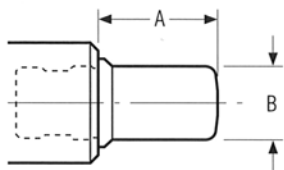


Figure 3

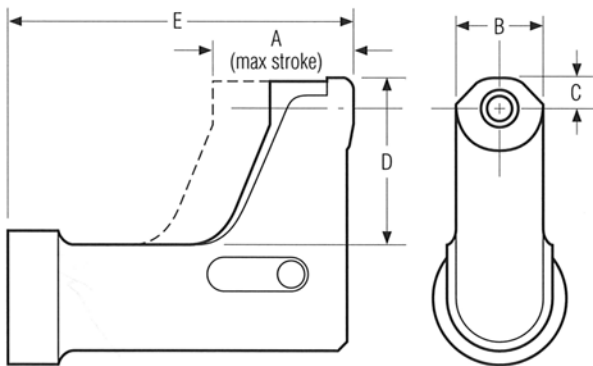


Figure 4

1/8" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-2725	2	1	2.05	.59	.24	2.05	2.55
99-2726	2	1	4.04	.59	.27	4.04	4.74
99-3715	4	0	1.53	.91	.37	1.00	2.70
99-3715-1	4	0	1.53	.91	.37	1.63	3.52

5/32" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1513	3	0	.35	.88			
99-1517	3	0	.30	.88			
99-1520	3	0	1.18	.75			
99-2701	1	0	2.06	.75	.38		
99-2702	2	1	3.98	.63	.29	3.98	4.68
99-2704	2	1	1.85	.63	.29	1.85	2.55
99-2705	1	1	5.05	.64	.29	4.355	
99-3712	4	0	1.57	.91	.37	1.00	2.74
99-3712-1	4	0	1.57	.91	.37	1.63	3.55

3/16" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1514	3	0	.35	.88			
99-1521	3	0	1.18	.75			
99-2707	1	0	2.06	.75	.38		
99-2708	2	1	3.94	.70	.32	3.94	4.64
99-2710	2	1	1.79	.70	.32	1.79	2.49
99-2711	1	1	4.99	.71	.32	4.30	
99-3713	4	0	1.57	.91	.37	1.00	2.74
99-3713-1	4	0	1.57	.91	.37	1.63	3.56

1/4" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-1515	3	0	.35	.88			
99-1522	3	0	1.18	.75			
99-2713	1	1	2.12	.75	.35	1.42	
99-2714	1	1	4.62	.75	.35	3.92	
99-2716	1	1	2.46	.75	.35	1.76	
99-2717	1	1	4.96	.75	.35	4.26	
99-3714	4	0	1.57	.91	.37	1.00	2.74
99-3714-1	4	0	1.57	.91	.37	1.63	3.56

5/16" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-2719	2	1	1.83	.92	.43	1.83	2.53
99-2720	2	1	4.68	.92	.39	4.37	4.97

3/8" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-2722	1	1	2.81	1.06	.48	2.11	
99-2723	1	1	5.00	1.06	.48	4.30	

7/16" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-2798	1	0	3.84	1.56			

1/2" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-2799	1	0	3.84	1.56			

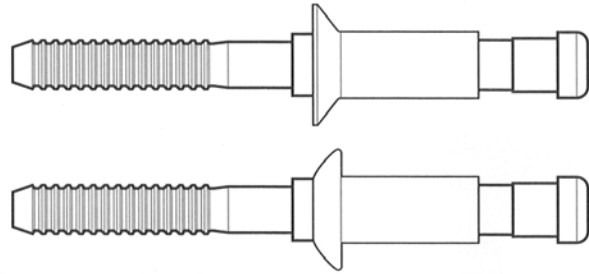
UNIMATIC® Single Action Blind Rivet Fasteners



The Unimatic Blind Rivet fastener provides uniform bulbed blind head configuration regardless of fastener diameter or material, and ensures joint integrity and enhanced fatigue life.

Use Unimatic Blind Rivet fasteners in general design applications, in thin sheet stackups, thin blind side sheet, or thick stackups.

Integrity and permanence mean the Unimatic lock collar is trusted by designers even in most demanding FOD critical applications such as high performance aircraft.



UNIMATIC Blind Rivet fastener, with flush and protruding heads.

Includes part numbers:

NAS1919B()-S	NAS1921M()-S	OSMLSP-B
SMLS100-M	NAS1921B()-S	S7MLS100-M
OSMLSP-EU	OSMLS100-B	NAS1919C()-S
SMLSP-B	OSMLSP-M	OSMLS100-EU
NAS1921C()-S	SMLSP-M	SMLS100-B
OSMLS100-M	NAS1919M()-S	SMLSP-EU
SMLS100-EU		



Model 2012

Type: Pneudraulic

Applications: High production

Features: Optimum stroke for one cycle installation.

Standard Inline & Offset Nose Assemblies

1/8"	5/32"	3/16"
99-2725	99-2731	99-2737
99-2726	99-2732	99-2738
99-3715 ¹	99-3716 ¹	99-3717 ¹
99-3715-1 ¹	99-3716-1 ¹	99-3717-1 ¹



Model 2025

Type: Pneudraulic

Applications: High production

Features: Optimum stroke for one cycle installation.

Standard Inline & Offset Nose Assemblies

1/8"	5/32"	3/16"	1/4"
99-2725	99-2731	99-2737	99-2743
99-2726	99-2732	99-2738	99-2744
99-3715 ¹	99-3716 ¹	99-3717 ¹	99-3718 ¹
99-3715-1 ¹	99-3716-1 ¹	99-3717-1 ¹	99-3718-1 ¹



Model 244

Type: Pneudraulic

Applications: High speed production

Features: Lightweight tool for fast, uniform installations. Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Inline & Offset Nose Assemblies

1/8"	5/32"	3/16"	1/4"
99-2725	99-2731	99-2737	99-2743
99-2726	99-2732	99-2738	99-2744
99-3715 ¹	99-3716 ¹	99-3717 ¹	99-3718 ¹
99-3715-1 ¹	99-3716-1 ¹	99-3717-1 ¹	99-3718-1 ¹

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

¹ Requires Adapter Part Number 128279. No Stroke Limiter Needed



Model 244OS

Type: Pneudraulic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners to 10mm diameter, heavy duty for years of dependable service. Minimal moving parts.

Standard Offset Nose Assemblies

1/8"	5/32"	3/16"	1/4"
99-3715	99-3716	99-3717	99-3718
99-3715-1	99-3716-1	99-3717-1	99-3718-1



Model 245/255

Type: Pneudraulic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners to 10mm diameter, heavy duty for years of dependable service. Minimal moving parts.

Standard Inline & Offset Nose Assemblies

1/8"	5/32"	3/16"	1/4"
99-2725 ²	99-2731 ²	99-2737 ²	99-2743 ²
99-2726 ²	99-2732 ²	99-2738 ²	99-2744 ²
99-3715 ³	99-3716 ³	99-3717 ³	99-3718 ³
99-3715-1 ³	99-3716-1 ³	99-3717-1 ³	99-3718-1 ³



Model 2480/A2480

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, and powerful, with an inline piston for longer life.

Standard Inline & Offset Nose Assemblies

1/8"	5/32"	3/16"	1/4"
9-2725	99-2731	99-2737	99-2743
99-2726	99-2732	99-2738	99-2744
99-3715 ¹	99-3716 ¹	99-3717 ¹	99-3718 ¹
99-3715-1 ¹	99-3716-1 ¹	99-3717-1 ¹	99-3718-1 ¹



Model 2502/A2502

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, with just one moving part for increased reliability, and an offset piston for limited clearance.

Standard Inline Nose Assemblies

1/8"	5/32"	3/16"	1/4"
99-2725 ²	99-2731 ²	99-2737 ²	99-2743 ²
99-2726 ²	99-2732 ²	99-2738 ²	99-2744 ²

1 Requires Adapter Part Number 128279. No Stroke Limiter Needed
 2 Requires Adapter Part Number 102463
 3 Requires Adapter Part Number 119400-1 and Stroke Limiter Part Number 118362

Note: Special noses for clearance applications may be available.
 Contact your HUCK representative for more information.



Model 2503/A2503

Type: Hydraulic
Applications: High speed production
Features: Small, lightweight, with just one moving part for increased reliability, and an offset piston for limited clearance. Achieves the longest stroke available in this series of tooling.

Standard Inline Nose Assemblies

1/8"	5/32"	3/16"	1/4"
99-2725 ²	99-2731 ²	99-2737 ²	99-2743 ²
99-2726 ²	99-2732 ²	99-2738 ²	99-2744 ²



Model 2580-12/A2580-12

Type: Hydraulic
Applications: High speed production
Features: Small, lightweight and powerful, with an inline piston for longer life.

Standard Inline Nose Assemblies

1/8"	5/32"	3/16"	1/4"
99-2725 ²	99-2731 ²	99-2737 ²	99-2743 ²
99-2726 ²	99-2732 ²	99-2738 ²	99-2744 ²



Model 206-375/A206-375

Type: Hydraulic
Applications: Limited clearance
Features: Uses offset nose assembly for added clearance, and only one moving part for minimum maintenance. Hoses can be repositioned.

Standard Offset Nose Assemblies

1/8"	5/32"	3/16"	1/4"
99-3715	99-3716	99-3717	99-3718
99-3715-1	99-3716-1	99-3717-1	99-3718-1



Model 7352

Type: Hydraulic
Applications: Limited clearance
Features: Close center to edge clearance using standard 1/8" - 1/4" nose assemblies.

Standard Inline Nose Assemblies

1/8"	5/32"	3/16"	1/4"
99-2725	99-2731	99-2737	99-2743
99-2726	99-2732	99-2738	99-2744

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

2 Requires AdapterPart Number 102463

Nose Assembly Specifications

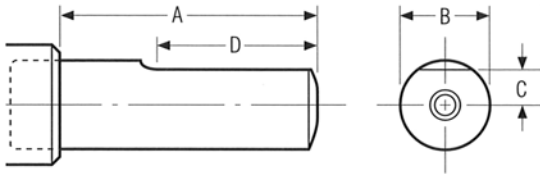


Figure 1

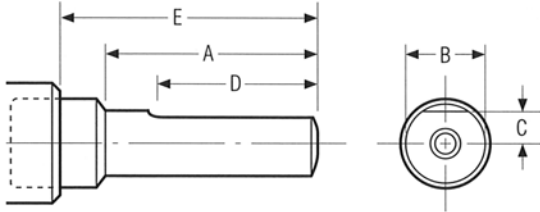


Figure 2

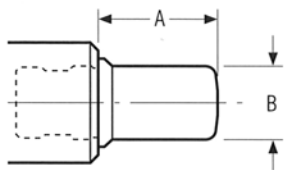


Figure 3

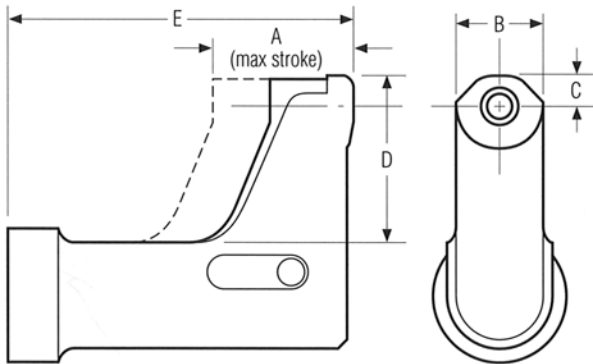


Figure 4

1/8" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-2725	2	1	2.05	.59	.24	2.05	2.55
99-2726	2	1	4.04	.59	.27	4.04	4.74
99-3715	4	0	1.53	.91	.37	1.00	2.70
99-3715-1	4	0	1.53	.91	.37	1.63	3.52

5/32" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-2731	2	1	2.55	.59	.24	2.55	2.05
99-2732	2	1	4.04	.63	.29	4.04	4.74
99-3716	4	0	1.53	.91	.37	1.00	2.70
99-3716-1	4	0	1.53	.91	.37	1.63	3.52

3/16" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-2737	2	1	2.05	.59	.24	2.05	2.55
99-2738	2	1	4.01	.70	.32	4.01	4.71
99-3717	4	0	1.53	.91	.37	1.00	2.70
99-3717-1	4	0	1.53	.91	.37	1.63	3.52

1/4" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-2743	1	1	2.12	.75	.34	1.42	
99-2744	1	1	4.62	.75	.34	3.92	
99-3718	4	0	1.57	.91	.37	1.00	2.74
99-3718-1	4	0	1.57	.91	.37	1.63	3.56

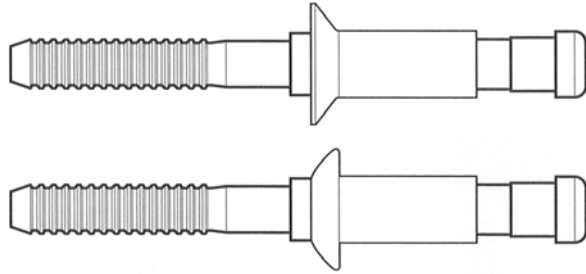
Note: Special noses for clearance applications may be available.
Contact your HUCK representative for more information.

End of Section 10

Aluminum Double Action Blind Rivet Fasteners



The unique controlled installation action of these blind rivets forms a wide-bearing head that assures integrity on thin sheet blind side applications. They can be used with confidence in FOD critical areas because of their positive mechanical lock feature. Aluminum Double Action Blind Rivets are acceptable in Kevlar and fiberglass applications. These fasteners are installed with shifting double action tools.



Double Action Blind Rivet fastener, with flush and protruding heads.

Includes part numbers:

NAS1919B()-() MLSPB()-()
NAS1921B()-() MLS100B()-()



Model 200

Type: Pneudraulic

Applications: Production

Features: Double action tool with separate lock collar driving for double action blind rivet installations.

Standard Inline Nose Assemblies

1/8"	5/32"	3/16"
78972 ¹	78973 ¹	78974 ¹
78972 ¹	78973 ¹	78974 ¹



Model R350

Type: Pneumatic

Applications: Limited clearance

Features: Uses offset nose assembly for added clearance, and only one moving part for minimum maintenance. Hoses can be repositioned.

Standard Inline Nose Assemblies

1/8"	5/32"	3/16"
78972	78973	78974

Nose Assembly Specifications

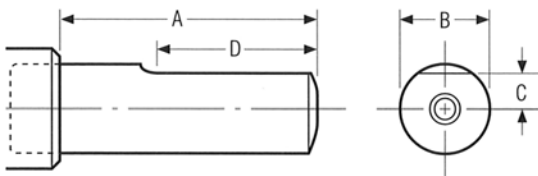


Figure 1

1/8" Diameter

Nose Assy	Fig	Flats	A	B	C	D
99-1013	1	1	2.08	.88	.31	1.32
78972	1	1	2.41	.72	.22	1.50
78978	1	1	1.79	.72	.22	1.31

5/32" Diameter

Nose Assy	Fig	Flats	A	B	C	D
99-458	1	1	2.08	.88	.31	1.32
78973	1	1	2.41	.72	.22	1.50
78979	1	1	1.79	.72	.22	1.31

3/16" Diameter

Nose Assy	Fig	Flats	A	B	C	D
99-459	1	1	2.08	.88	.31	1.32
78974	1	1	2.41	.72	.22	1.50
78980	1	1	1.79	.72	.22	1.31

1/4" Diameter

Nose Assy	Fig	Flats	A	B	C	D
99-740	1	1	2.19	.94	.31	1.38

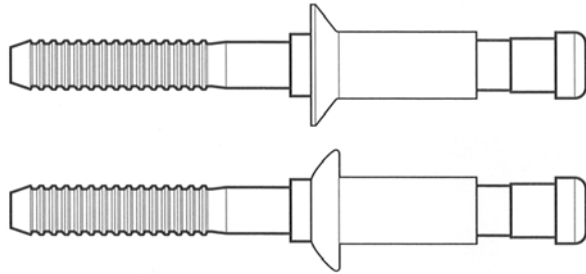
Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

¹ Requires adapter part number 104406

Double Action Cres and Monel Blind Rivet Fasteners



The unique controlled installation action of these blind rivets forms a wide-bearing head that assures integrity on thin sheet blind side applications. They can be used with confidence in FOD critical areas because of their positive mechanical lock feature. Monel and A-286 Double Action Blind Rivets are currently being used in composite applications of production aircraft.



Double Action Blind Rivet fastener, with flush and protruding heads.

Includes part numbers:

NAS 1919C () - ()	MLS100-M () - ()	NAS 1919M () - ()
7MLS100-M () - ()	NAS 1921M () - ()	MLSP-EU () - ()
MLS100-EU () - ()	NAS 1921C () - ()	MLSP-M () - ()



Model 200

Type: Pneudraulic

Applications: Production

Features: Double action tool with separate lock collar driving for double action blind rivet installation.

Standard Inline Nose Assemblies

1/8"	5/32"	3/16"	1/4"	5/16"
78972 ¹	78973 ¹	78974 ¹		
99-1013	99-458	99-459		

Nose Assembly Specifications

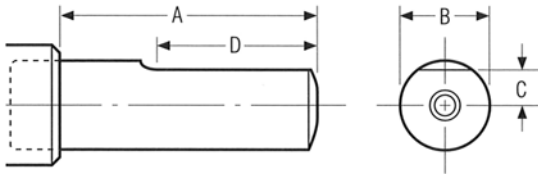


Figure 1

1/8" Diameter

Nose Assy	Fig	Flats	A	B	C	D
99-1013	1	1	2.08	.88	.31	1.32
78972	1	1	2.41	.72	.22	1.50
78978	1	1	1.79	.72	.22	1.31

5/32" Diameter

Nose Assy	Fig	Flats	A	B	C	D
99-458	1	1	2.08	.88	.31	1.32

3/16" Diameter

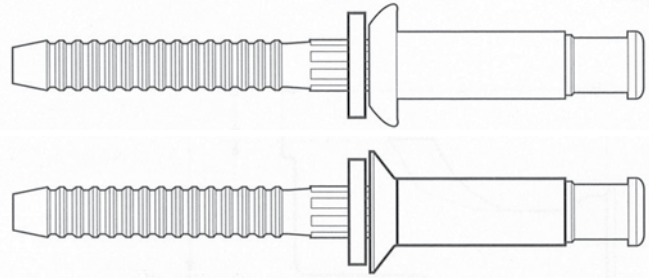
Nose Assy	Fig	Flats	A	B	C	D
99-459	1	1	2.08	.88	.31	1.32

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

¹ Requires adapter part number 104406



The HuckMAX™ Blind Rivet System is a general-purpose blind fastening system that is easy to install and offers significant advantages over generic systems. The blind side “Expander” component, for example, improves sheet take-up and load bearing to conform with M7885. In addition, the HuckMAX can be checked visually to see if it has locked.



HUCK-MAX™ Blind Rivet fastener, with protruding and 100° flush and heads, nominal and oversize diameters.

Includes part numbers:

HR3212	HR3245	HR3553
NAS9302E	HR3213	HR3252
HR3555	NAS9301E	HR3214
HR3253	NAS9302B	NAS9303E
HR3222	HR3255	NAS9301B
NAS9305E	HR3223	HR3522
NAS9303B	NAS9304E	HR3224
HR3523	NAS9305B	NAS9306E
HR3242	HR3524	NAS9304B
HR3243	HR3552	NAS9306B



Model 2013

Type: Pneudraulic

Applications: High production

Features: Small, lightweight tool for fast uniform installations.

Standard Inline & Offset Nose Assemblies

1/8"	5/32"	3/16"	1/4"	5/16"
99-3442	99-3442	99-3442		
99-3443	99-3443	99-3443		
99-1333	99-1333	99-1333		
99-1334	99-1334	99-1334		
99-1335	99-1335	99-1335		
99-1336	99-1336	99-1336		

Nose Assembly Specifications

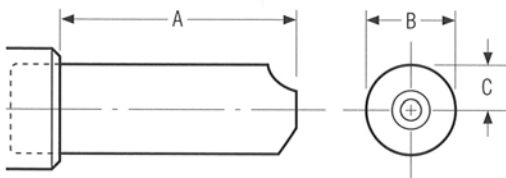


Figure 1

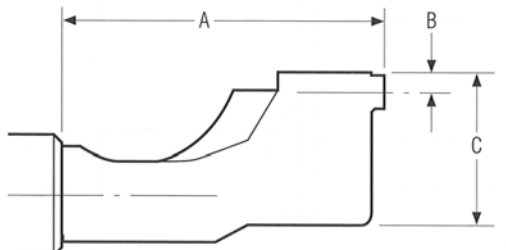


Figure 2

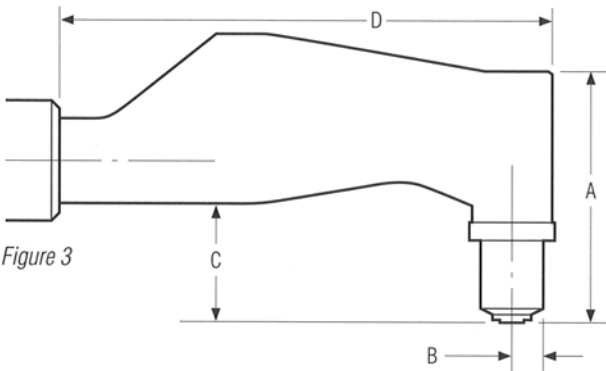


Figure 3

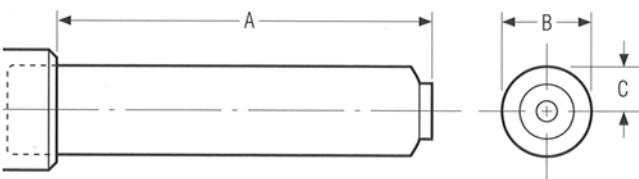


Figure 4

1/8" Diameter

Nose Assy	Fig	Flats	A	B	C	D
99-1333	2	0	4.38	.19	1.50	
99-1334	3	0	3.00	.32	1.19	5.38
99-1335	4	0	3.23	.74	.37	
99-1336	2	0	3.38	.25	1.56	
99-1479	1	0	1.94	.75	.38	
99-3442	1	0	1.63	.74	.37	
99-3443	1	0	3.44	.74	.37	

5/32" Diameter

Nose Assy	Fig	Flats	A	B	C	D
99-1333	2	0	4.38	.19	1.50	
99-1334	3	0	3.00	.32	1.19	5.38
99-1335	4	0	3.23	.74	.37	
99-1336	2	0	3.38	.25	1.56	
99-1479	1	0	1.94	.75	.38	
99-3442	1	0	1.63	.74	.37	
99-3443	1	0	3.44	.74	.37	

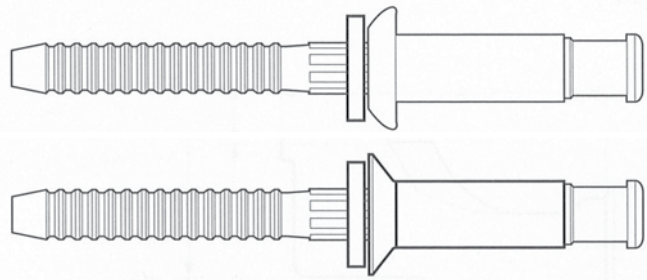
3/16" Diameter

Nose Assy	Fig	Flats	A	B	C	D
99-1333	2	0	4.38	.19	1.50	
99-1334	3	0	3.00	.32	1.19	5.38
99-1335	4	0	3.23	.74	.37	
99-1336	2	0	3.38	.25	1.56	
99-1479	1	0	1.94	.75	.38	
99-3442	1	0	1.63	.74	.37	
99-3443	1	0	3.44	.74	.37	

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.



The HUCK-CLINCH® Blind Rivet fastener is a high performance fastener featuring a high clinch function providing excellent sheet take-up. Shank expansion during installation of the Huck-Clinch fastener produces positive hole fill, and a stop washer ensures flush pin break.



HUCK-CLINCH® Blind Rivet fastener, with protruding and 100° flush and heads, nominal and oversize diameters.

Includes part numbers:

HC3212	NAS9302BH	NAS9302EH
HC6222	HC3213	NAS9301BH
NAS9301EH	HC6223	HC3214
NAS9303BH	NAS9303EH	HC6224
HC3242	NAS9305BH	NAS9305EH
HC6252	HC3243	NAS9304BH
NAS9304EH	HC6253	HC3245
NAS9306BH	NAS9306EH	



Model 2013

Type: Pneudraulic

Applications: High production

Features: Small, lightweight tool for fast uniform installations.

Standard Inline & Offset Nose Assemblies

1/8"	5/32"	3/16"	1/4"	5/16"
99-3442	99-3442	99-3442		
99-3443	99-3443	99-3443		
99-1333	99-1333	99-1333		
99-1334	99-1334	99-1334		
99-1335	99-1335	99-1335		
99-1336	99-1336	99-1336		

Nose Assembly Specifications

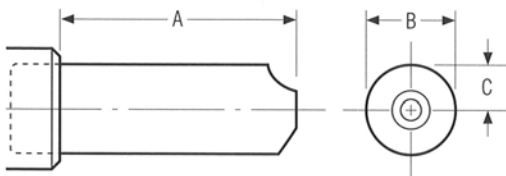


Figure 1

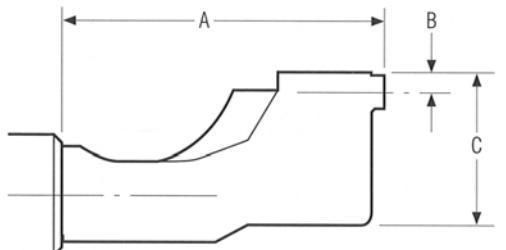


Figure 2

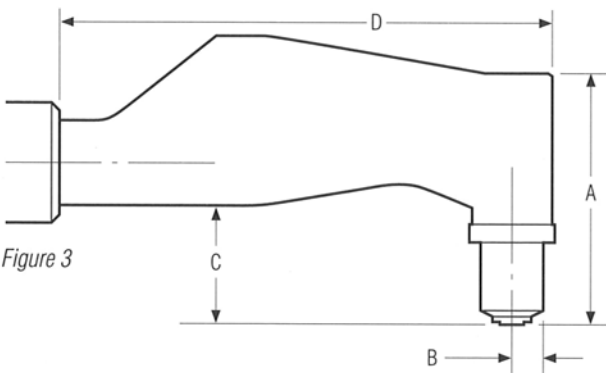


Figure 3

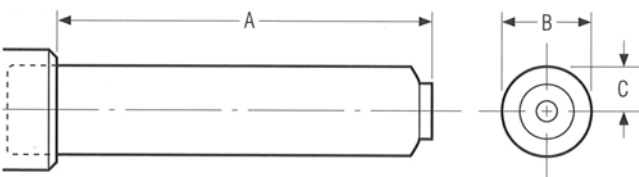


Figure 4

1/8" Diameter

Nose Assy	Fig	Flats	A	B	C	D
99-1333	2	0	4.38	.19	1.50	
99-1334	3	0	3.00	.32	1.19	5.38
99-1335	4	0	3.23	.74	.37	
99-1336	2	0	3.38	.25	1.56	
99-1479	1	0	1.94	.75	.38	
99-3442	1	0	1.63	.74	.37	
99-3443	1	0	3.44	.74	.37	

5/32" Diameter

Nose Assy	Fig	Flats	A	B	C	D
99-1333	2	0	4.38	.19	1.50	
99-1334	3	0	3.00	.32	1.19	5.38
99-1335	4	0	3.23	.74	.37	
99-1336	2	0	3.38	.25	1.56	
99-1479	1	0	1.94	.75	.38	
99-3442	1	0	1.63	.74	.37	
99-3443	1	0	3.44	.74	.37	

3/16" Diameter

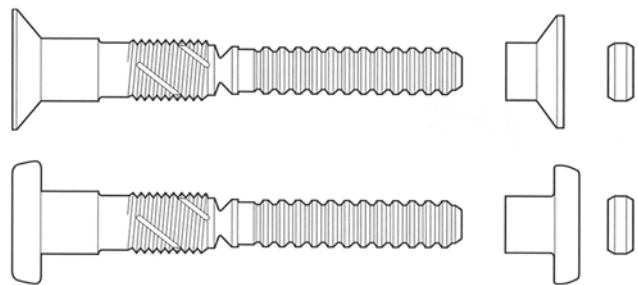
Nose Assy	Fig	Flats	A	B	C	D
99-1333	2	0	4.38	.19	1.50	
99-1334	3	0	3.00	.32	1.19	5.38
99-1335	4	0	3.23	.74	.37	
99-1336	2	0	3.38	.25	1.56	
99-1479	1	0	1.94	.75	.38	
99-3442	1	0	1.63	.74	.37	
99-3443	1	0	3.44	.74	.37	

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.



The Asp® fastening system provides a simplified method of fastening composite, soft core, metallic, or other materials which are sensitive to fastener clamp-up or installation force considerations. Clamping force can be infinitely adjusted and then sustained by installation—accommodating the unique requirements of a given structural design.

The Asp fastener has a positive mechanical lock for use in vibration and FOD critical installations. It installs quickly and easily eliminating the need for potting, bushings, inserts, or step hole preparation.



Asp® fastener showing flush and protruding heads, vsleeves, and lock collars.

Includes part numbers:

AspFF-DT	2Asp509F-DT	2AspPP-EU
2AspFF-V	AspPF-DT	2Asp509P-DT
2Asp509F-EU	2AspFP-V	AspPP-DT
AspFF-EU	2Asp509P-EU	2AspPF-V
2AspFF-DT	AspFP-EU	2AspPP-V
2AspFP-DT	AspFF-EU	AspFP-V
2Asp509F-V	2AspPF-DT	2AspFF-EU
AspPF-V	2Asp509P-V	2AspPP-DT
2AspFP-EU	AspPP-V	



Model 244

Type: Pneudraulic

Applications: High speed production

Features: Lightweight tool for fast, uniform installations. Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Inline Nose Assemblies

13/64" (06)	17/64" (08)	21/64" (10)
99-2642	99-2645	99-2648
99-2643	99-2646	99-2649



Model 244OS

Type: Pneudraulic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners.

Standard Offset Nose Assemblies

3/64" (06)	17/64" (08)	21/64" (10)
99-3728	99-3729	99-3730
99-3728-1	99-3729-1	99-3730-1



Model 245/255

Type: Pneudraulic

Applications: High speed production

Features: Optimum stroke for one cycle installation of fasteners. Minimal moving parts.

Standard Inline & Offset Nose Assemblies

13/64" (06)	17/64" (08)	21/64" (10)
99-2642 ¹	99-2645 ¹	99-2648 ¹
99-2643 ¹	99-2646 ¹	99-2649 ¹
99-3728 ²	99-3729 ²	99-3730 ²
99-3728-1 ²	99-3729-1 ²	99-3730-1 ²



Model 2502/A2502

Type: Hydraulic

Applications: High speed production

Features: Small, lightweight, with just one moving part for increased reliability, and an offset piston for limited clearance.

Standard Inline & Offset Nose Assemblies

13/64" (06)	17/64" (08)	21/64" (10)
99-2642 ¹	99-2645 ¹	99-2648
99-2643 ¹	99-2646 ¹	99-2649
99-3728 ²	99-3729 ²	99-3730 ²
99-3728-1 ²	99-3729-1 ²	99-3730-1 ²

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.



**Model 206-375/
A206-375**

Type: Hydraulic

Applications: Limited clearance

Features: Uses offset nose assembly for added clearance, and only one moving part for minimum maintenance. Hoses can be repositioned.

Standard Offset Nose Assemblies

13/64" (06)	17/64" (08)	21/64" (10)
99-3728	99-3729	99-3730
99-3728-1	99-3729-1	99-3730-1

Nose Assembly Specifications

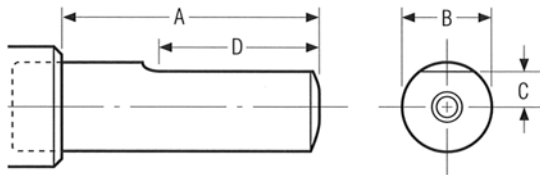


Figure 1

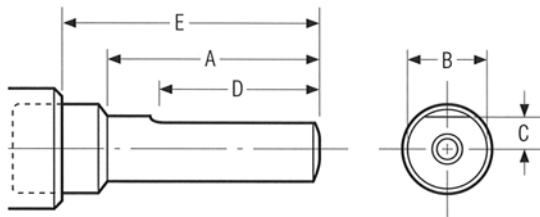


Figure 2

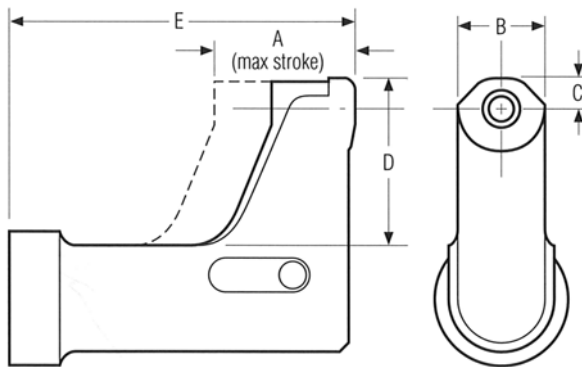


Figure 3

13/64" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-2642	1	1	3.38	.75	.34	1.76	
99-2643	1	1	5.88	.75	.34	4.26	
99-3728	3	0	1.50	.91	.33	1.58	2.69
99-3728-1	3	0	1.50	.91	.37	1.63	3.49

17/64" Diameter

Nose Assy	Fig	Flats	A	B	C	D	E
99-2645	1	1	2.09	.75	.33	1.50	
99-2645	1	1	3.42	.75	.34	1.79	
99-2646	1	1	5.92	.75	.34	4.29	
99-3729	3	0	1.53	.91	.37	1.00	2.71
99-3729-1	3	0	1.53	.91	.37	1.63	3.55

21/64" Diameter

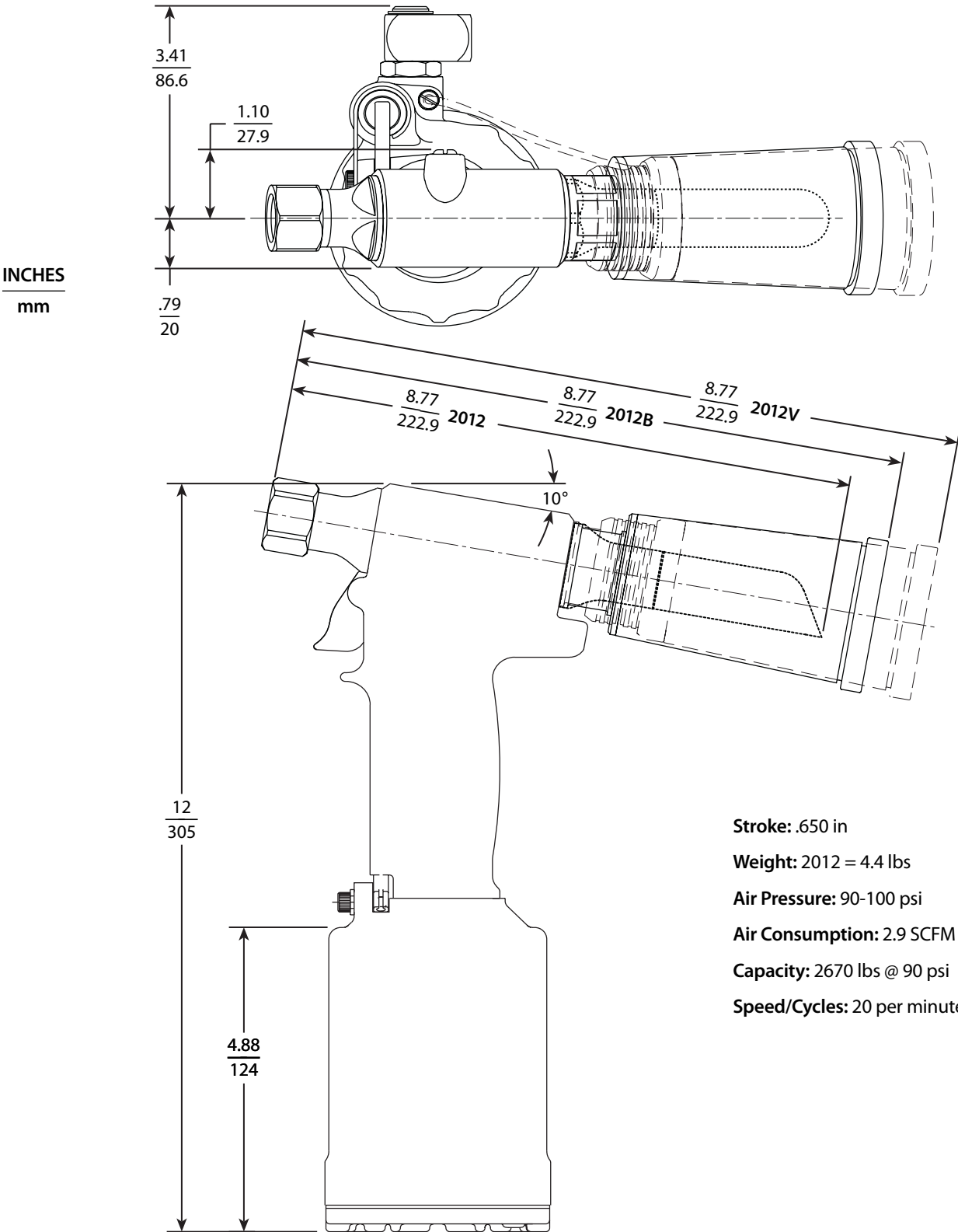
Nose Assy	Fig	Flats	A	B	C	D	E
99-2648	2	1	2.00	.81	.34	1.50	2.38
99-2648	1	1	3.45	.92	.43	1.70	
99-2649	1	1	5.95	.92	.43	4.20	
99-3730	3	0	1.56	.91	.37	1.00	2.74
99-3730-1	3	0	1.57	.91	.37	1.63	1.63

Note: Special noses for clearance applications may be available. Contact your HUCK representative for more information.

End of Section 15

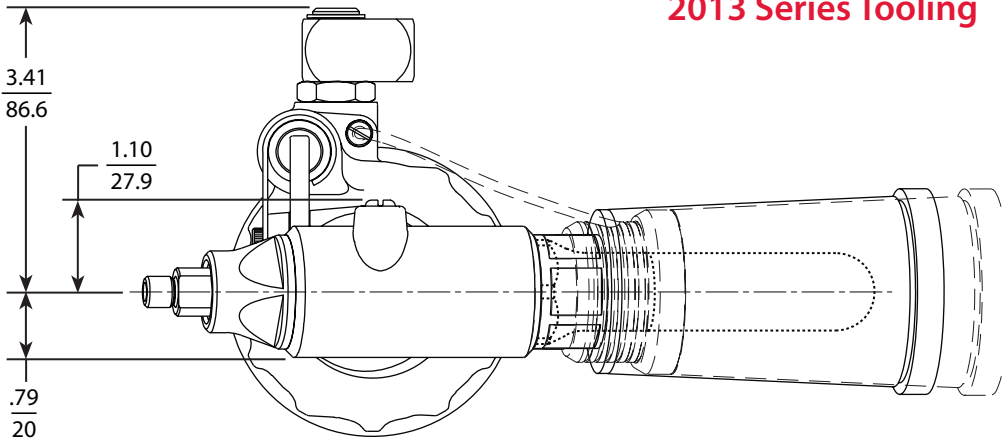
Pneudraulic Tooling Specifications

2012 Series Tooling

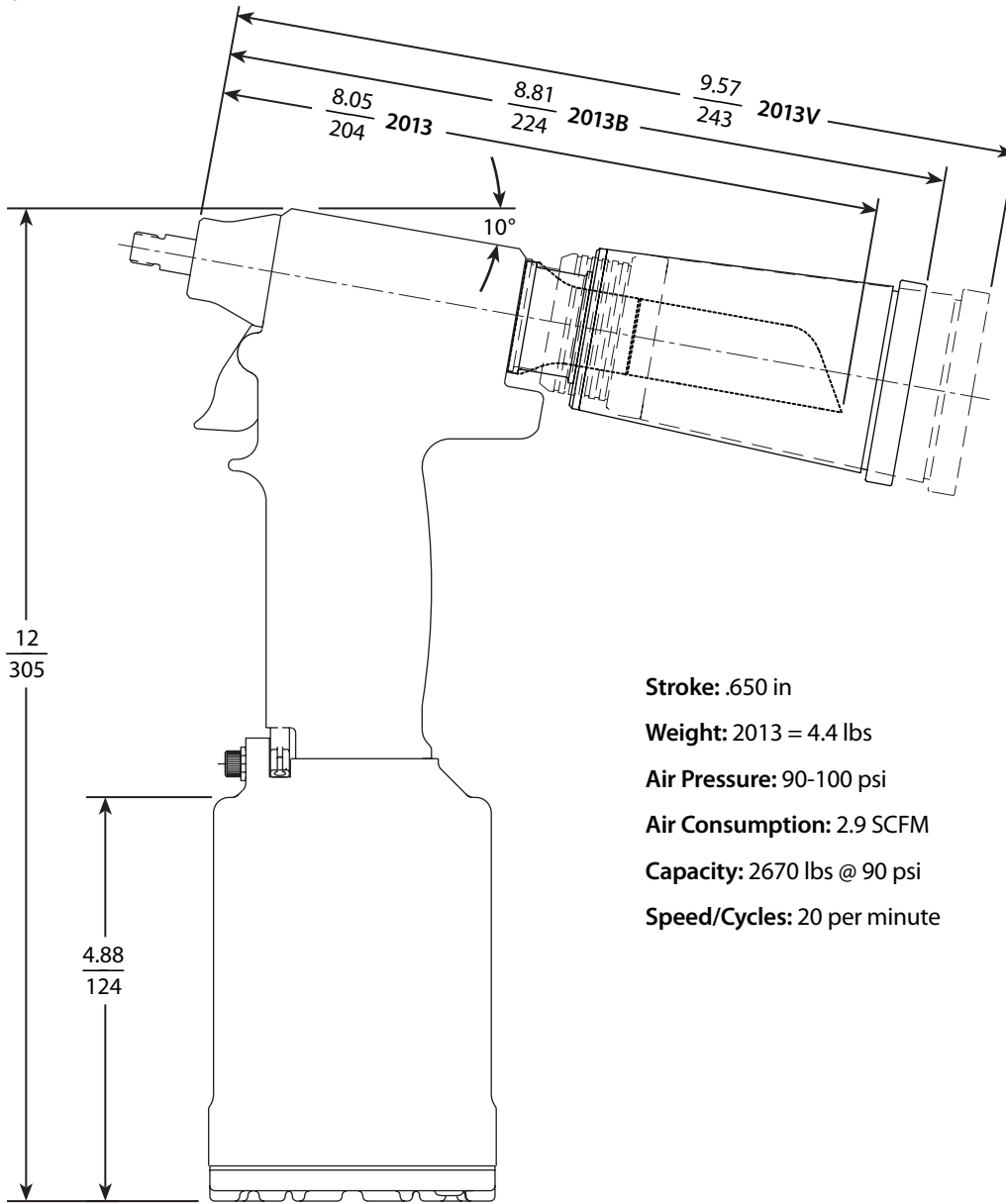


Stroke: .650 in
Weight: 2012 = 4.4 lbs
Air Pressure: 90-100 psi
Air Consumption: 2.9 SCFM
Capacity: 2670 lbs @ 90 psi
Speed/Cycles: 20 per minute

2013 Series Tooling

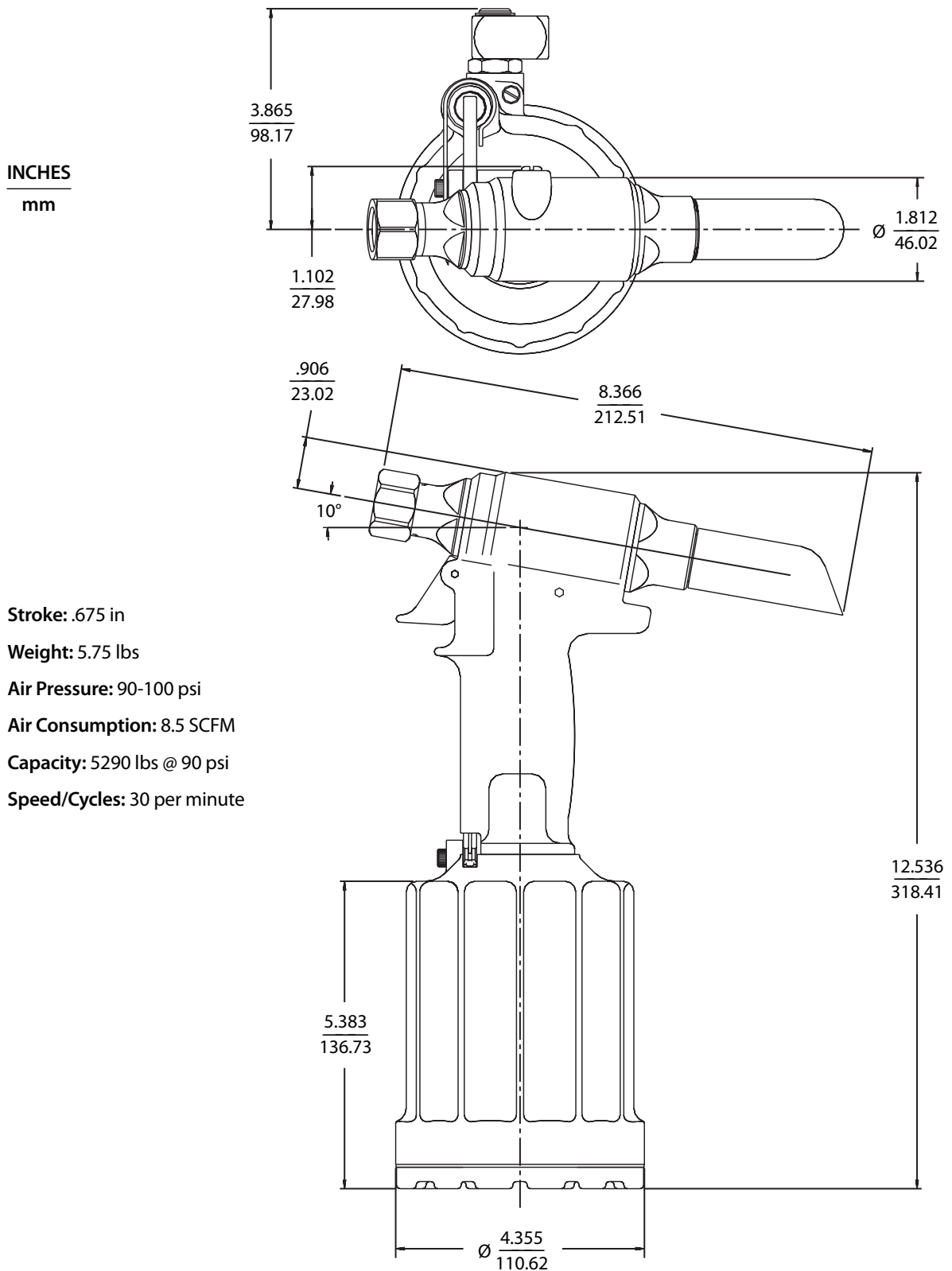


INCHES
mm

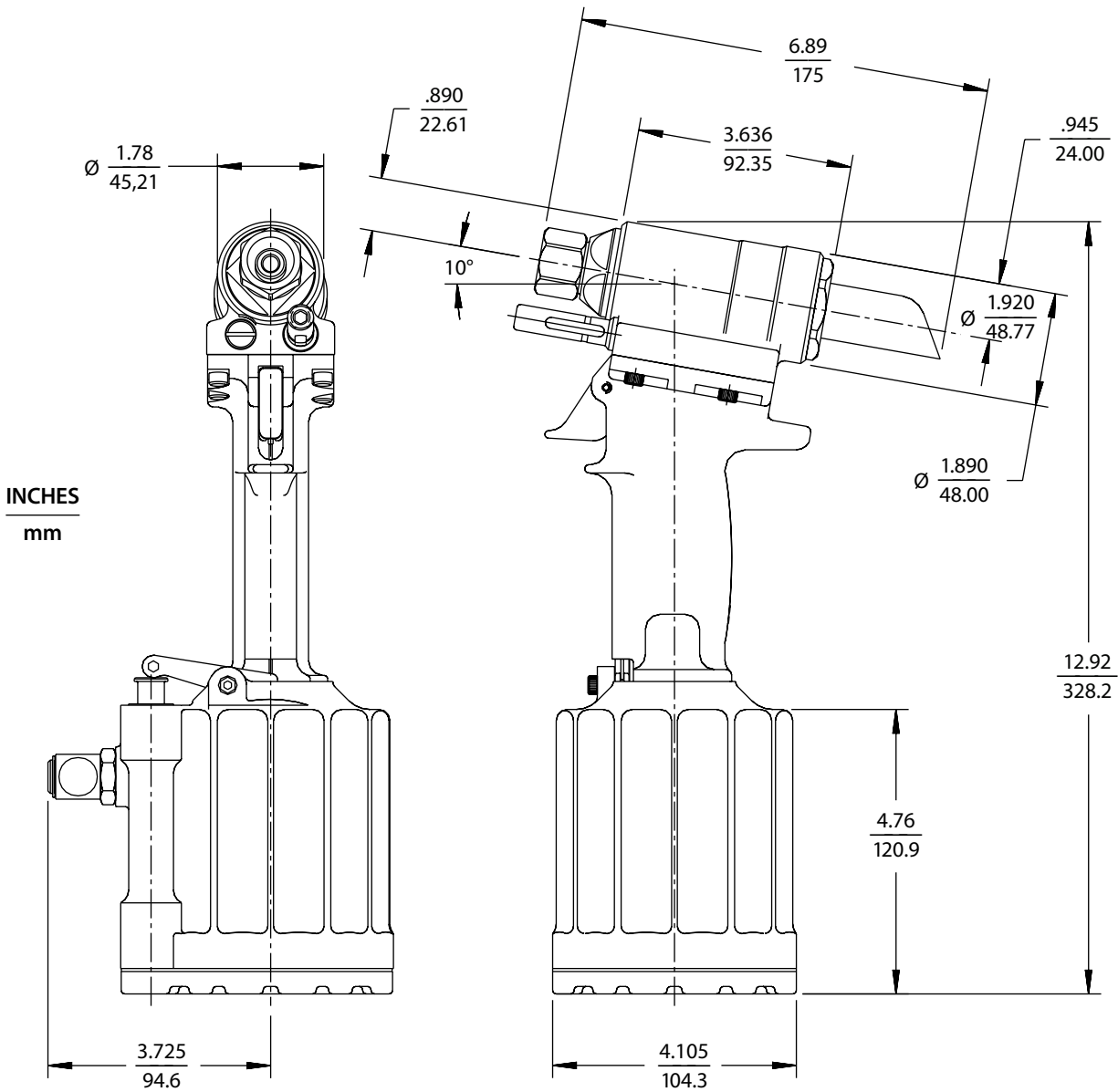


- Stroke: .650 in
- Weight: 2013 = 4.4 lbs
- Air Pressure: 90-100 psi
- Air Consumption: 2.9 SCFM
- Capacity: 2670 lbs @ 90 psi
- Speed/Cycles: 20 per minute

2025 Series Tooling

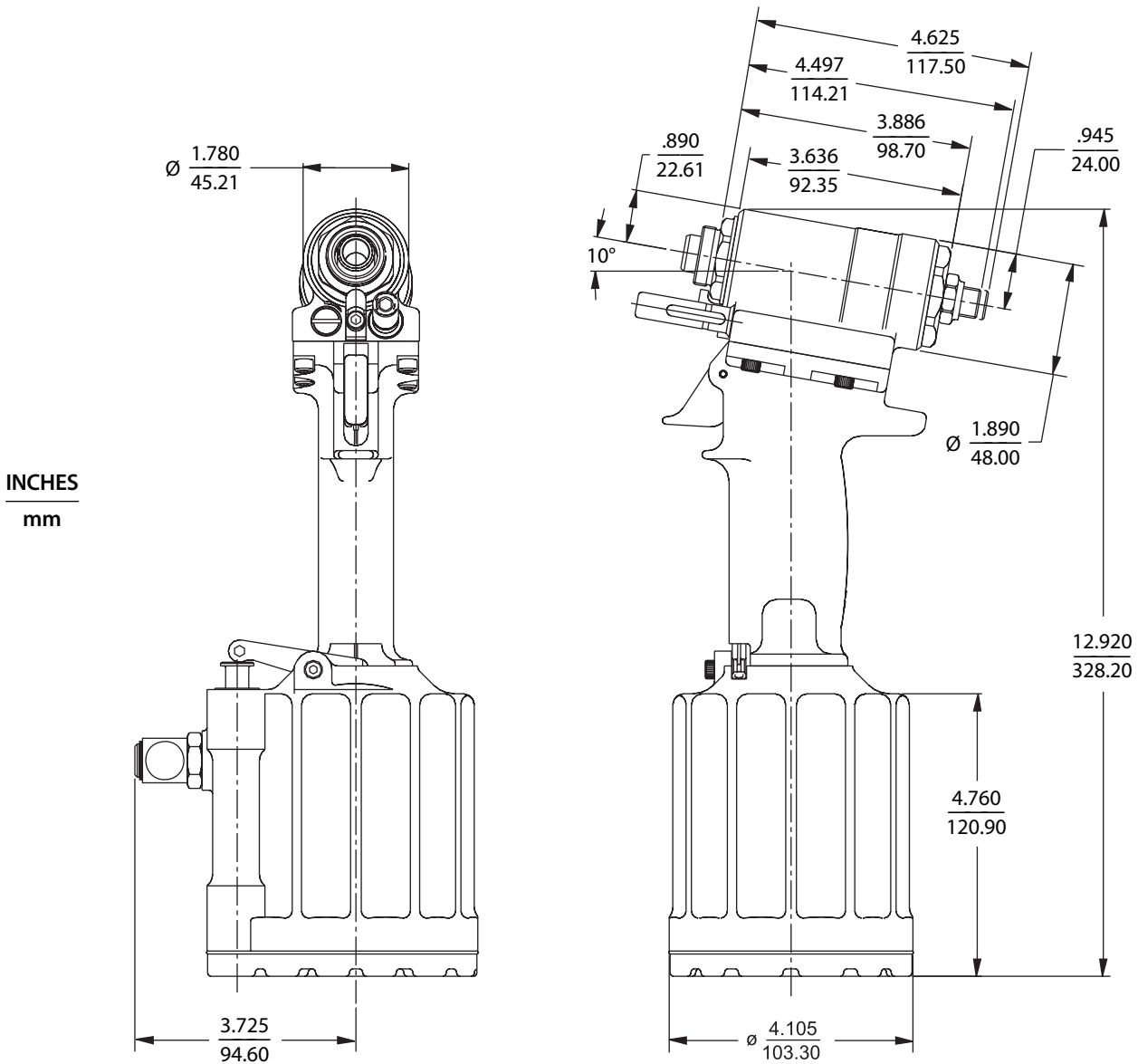


244 Series Tooling



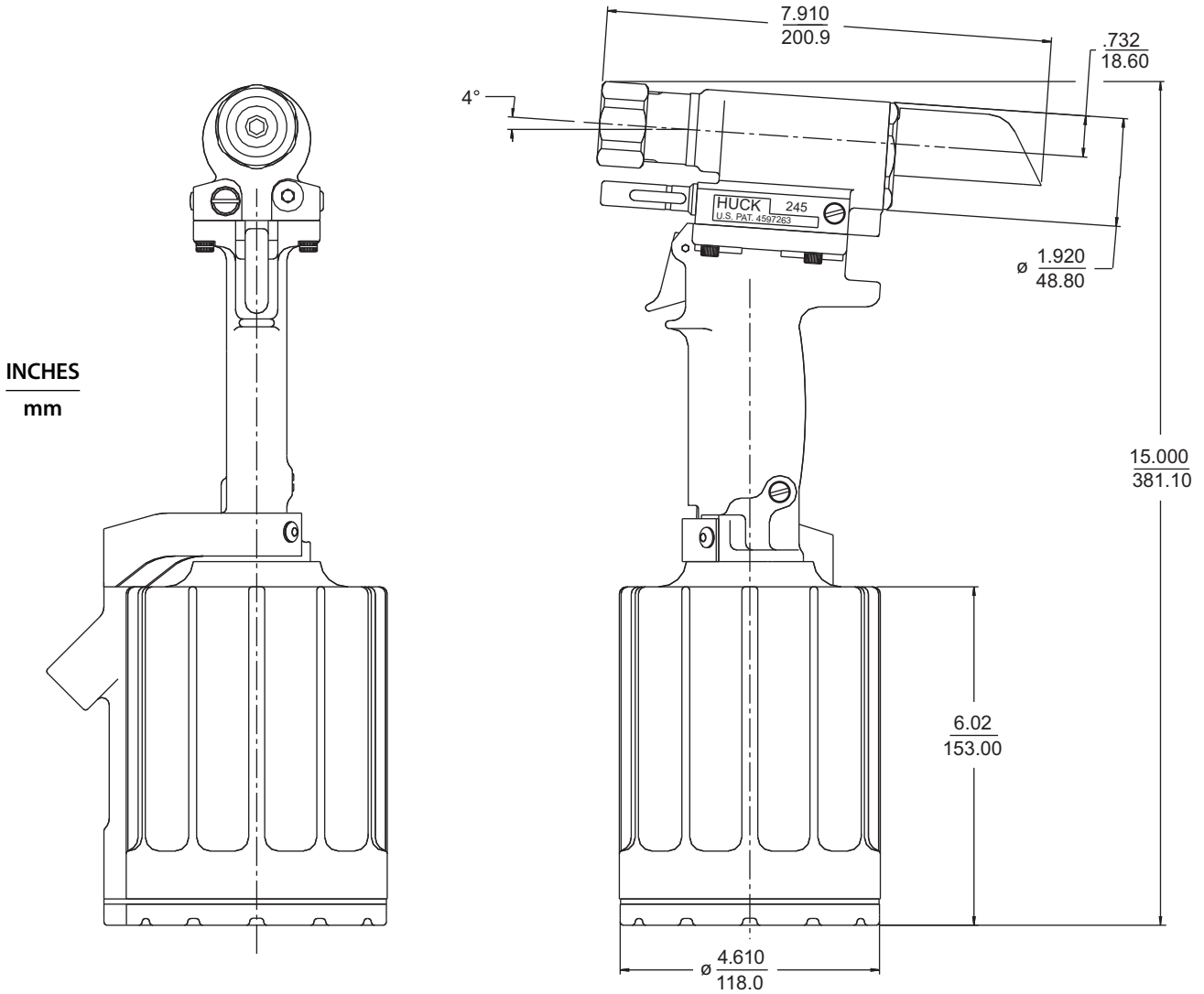
- Stroke: .562 in
- Weight: 5.69 lbs
- Air Pressure: 90-100 psi
- Air Consumption: 6.3 SCFM
- Capacity: 4606 lbs @ 90 psi
- Speed/Cycles: 30 per minute

2440S Series Tooling



- Stroke:** .675 in
- Weight:** 5.69 lbs
- Air Pressure:** 90-100 psi
- Air Consumption:** 6.3 SCFM
- Capacity:** 4606 lbs @ 90 psi
- Speed/Cycles:** 30 per minute

245 Series Tooling



Stroke: .625 in

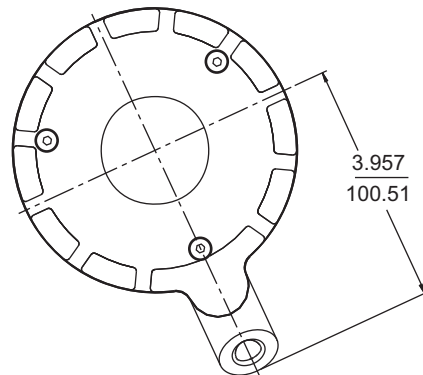
Weight: 8.8 lbs

Air Pressure: 90-100 psi

Air Consumption: 11.5 SCFM

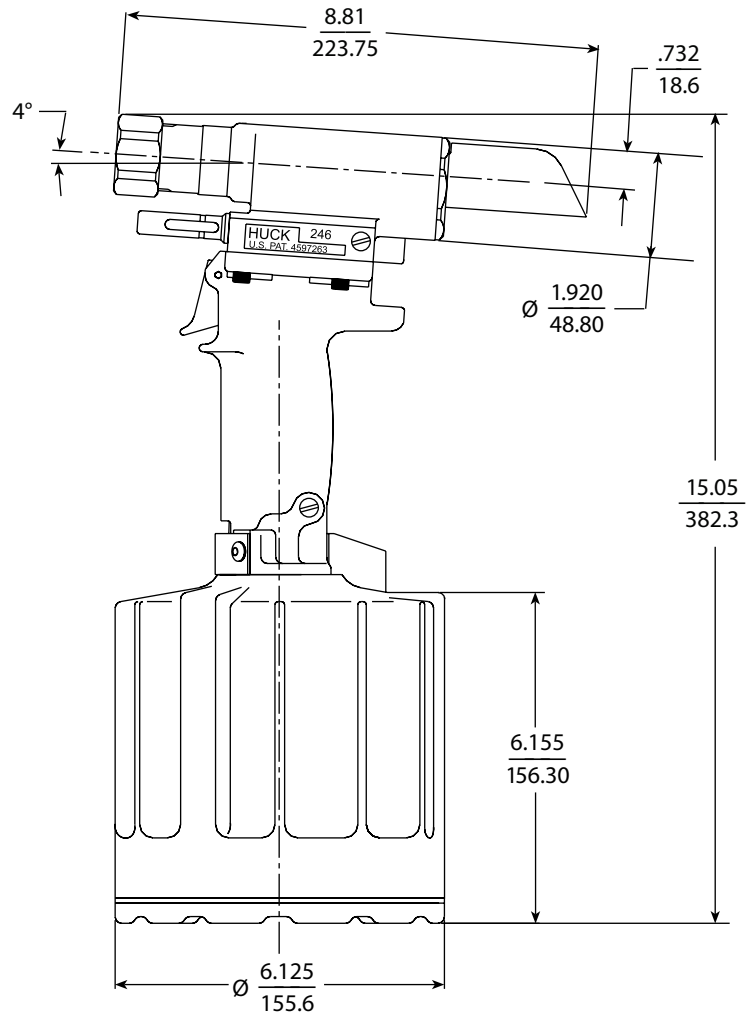
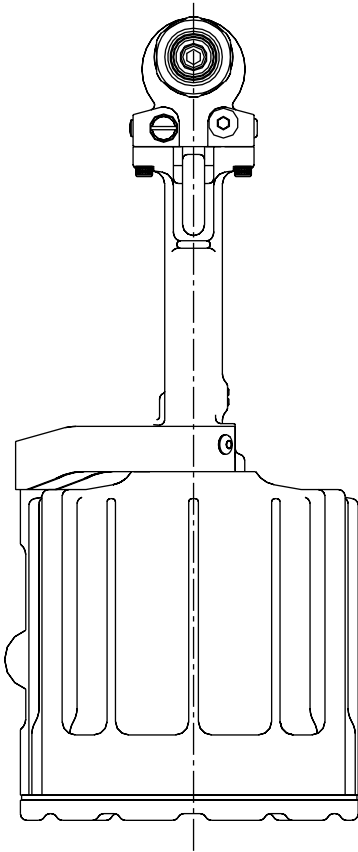
Capacity: 7750 lbs @ 90 psi

Speed/Cycles: 30 per minute

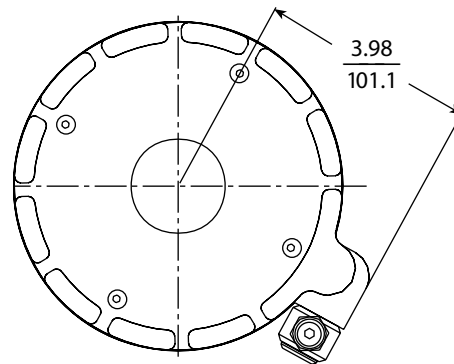


246 Series Tooling

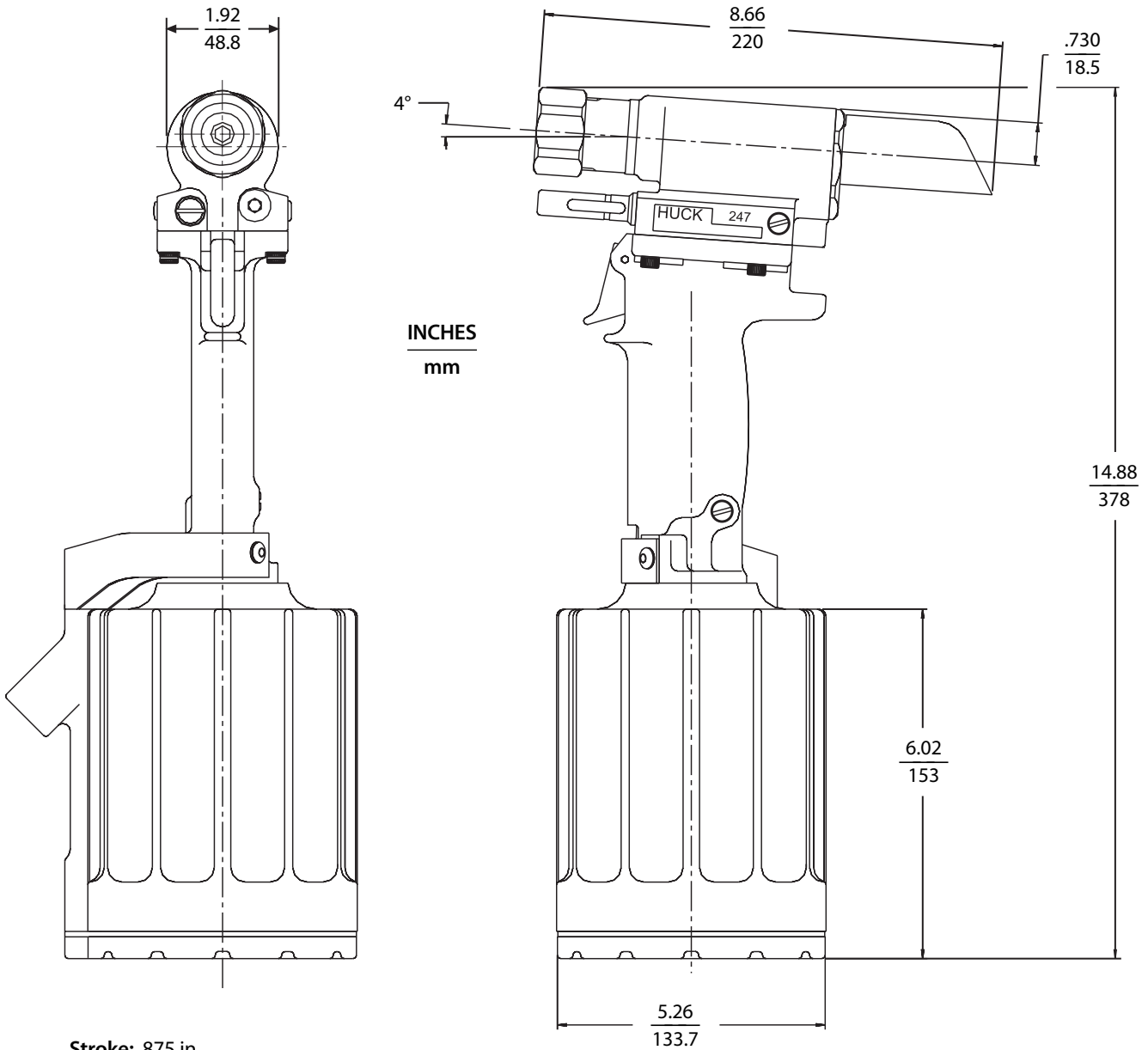
INCHES
mm



- Stroke: .875 in
- Weight: 11.1 lbs
- Air Pressure: 90-100 psi
- Air Consumption: 22.4 SCFM
- Capacity: 9986 lbs @ 90 psi
- Speed/Cycles: 30 per minute



247 Series Tooling



Stroke: .875 in

Weight: 10.01 lbs

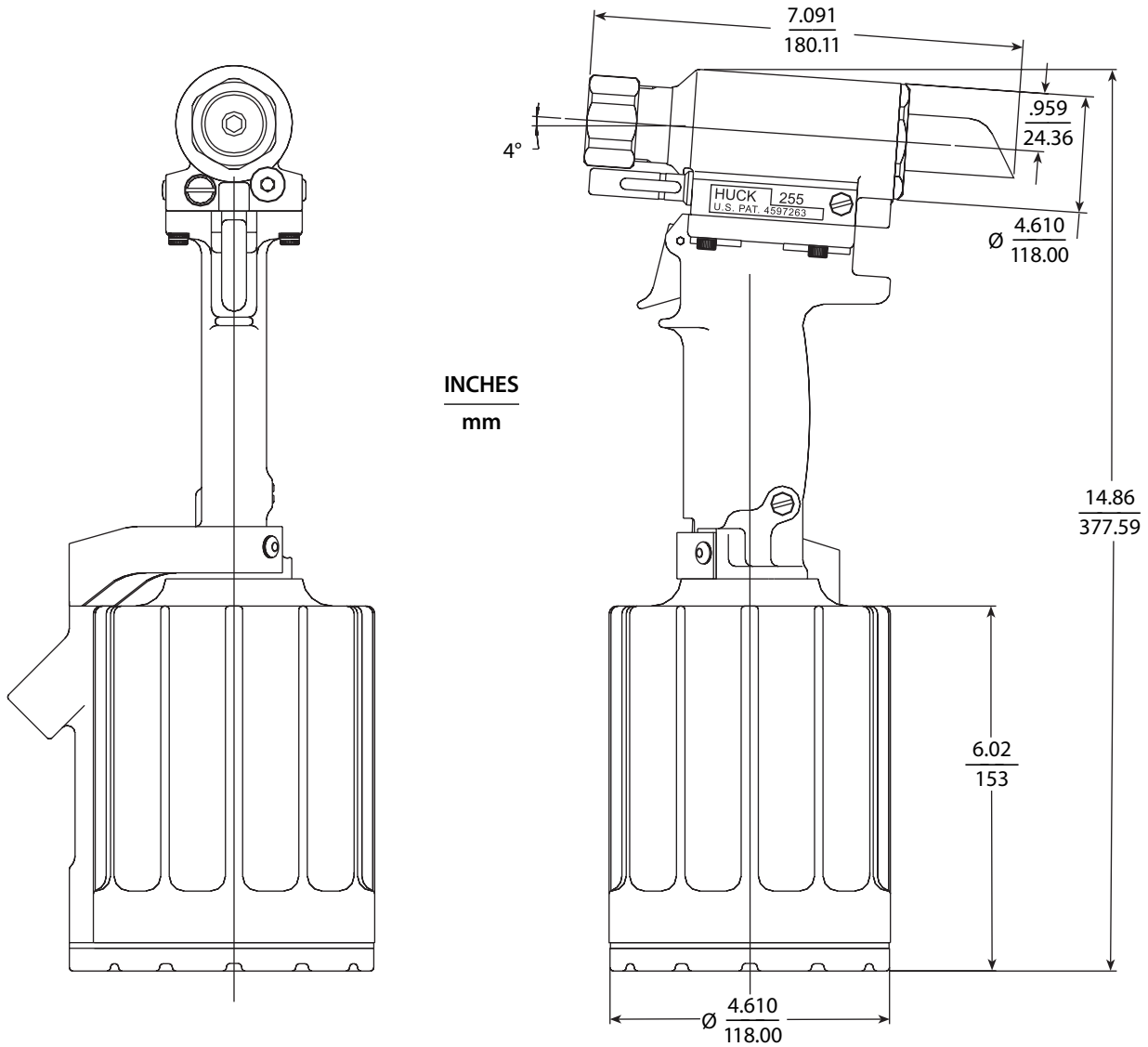
Air Pressure: 90 -100 psi

Air Consumption: 11.5 SCFM

Capacity: 5280 lbs @ 90 psi

Speed/Cycles: 30 per minute

255 Series Tooling



Stroke: .625 in

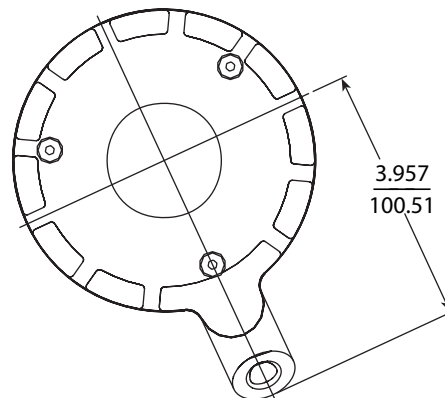
Weight: 8.8 lbs

Air Pressure: 90-100 psi

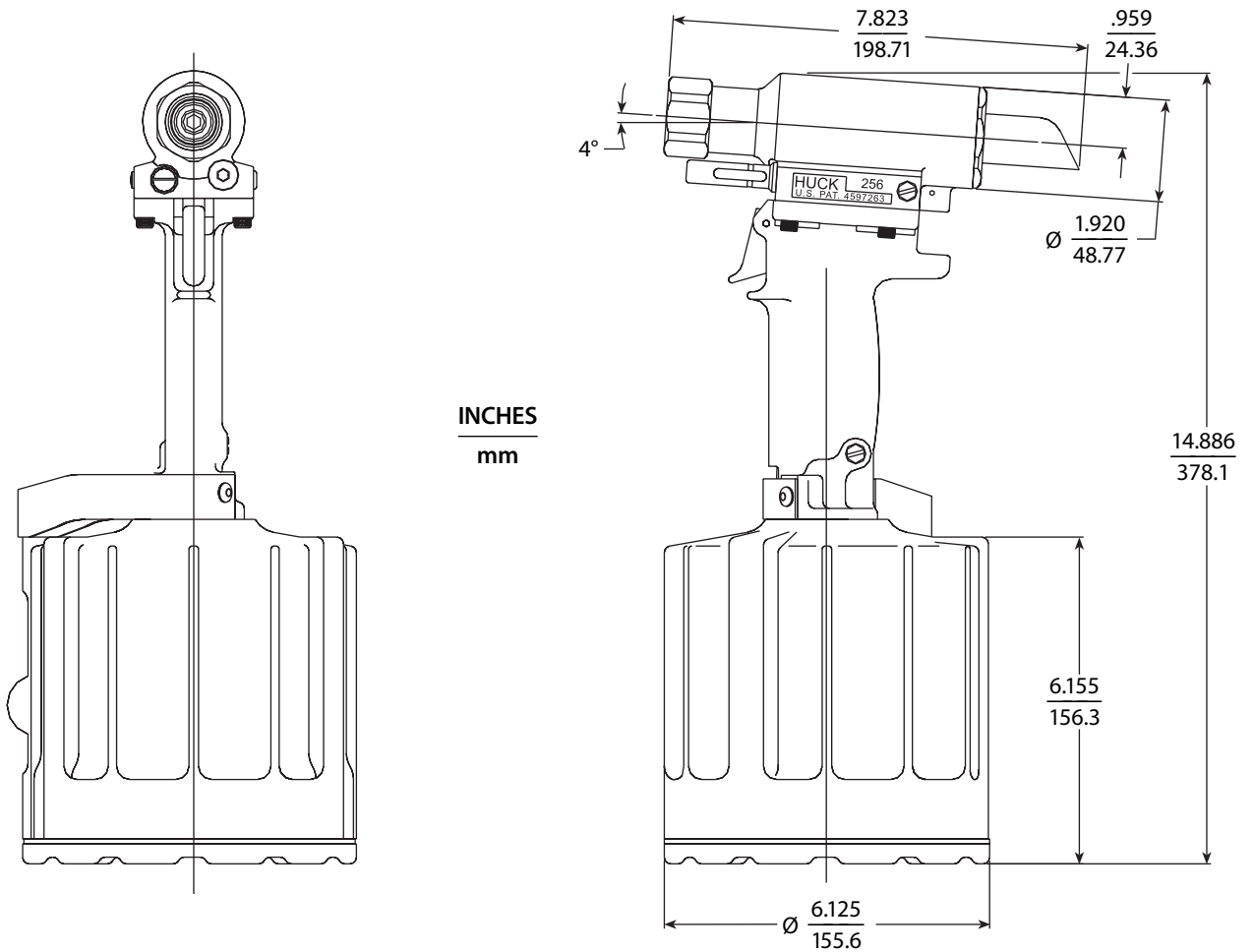
Air Consumption: 11.5 SCFM

Capacity: 7750 lbs @ 90 psi

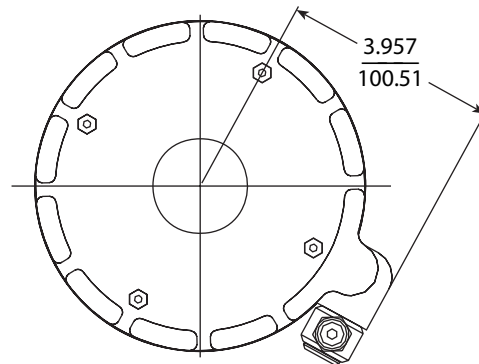
Speed/Cycles: 30 per minute



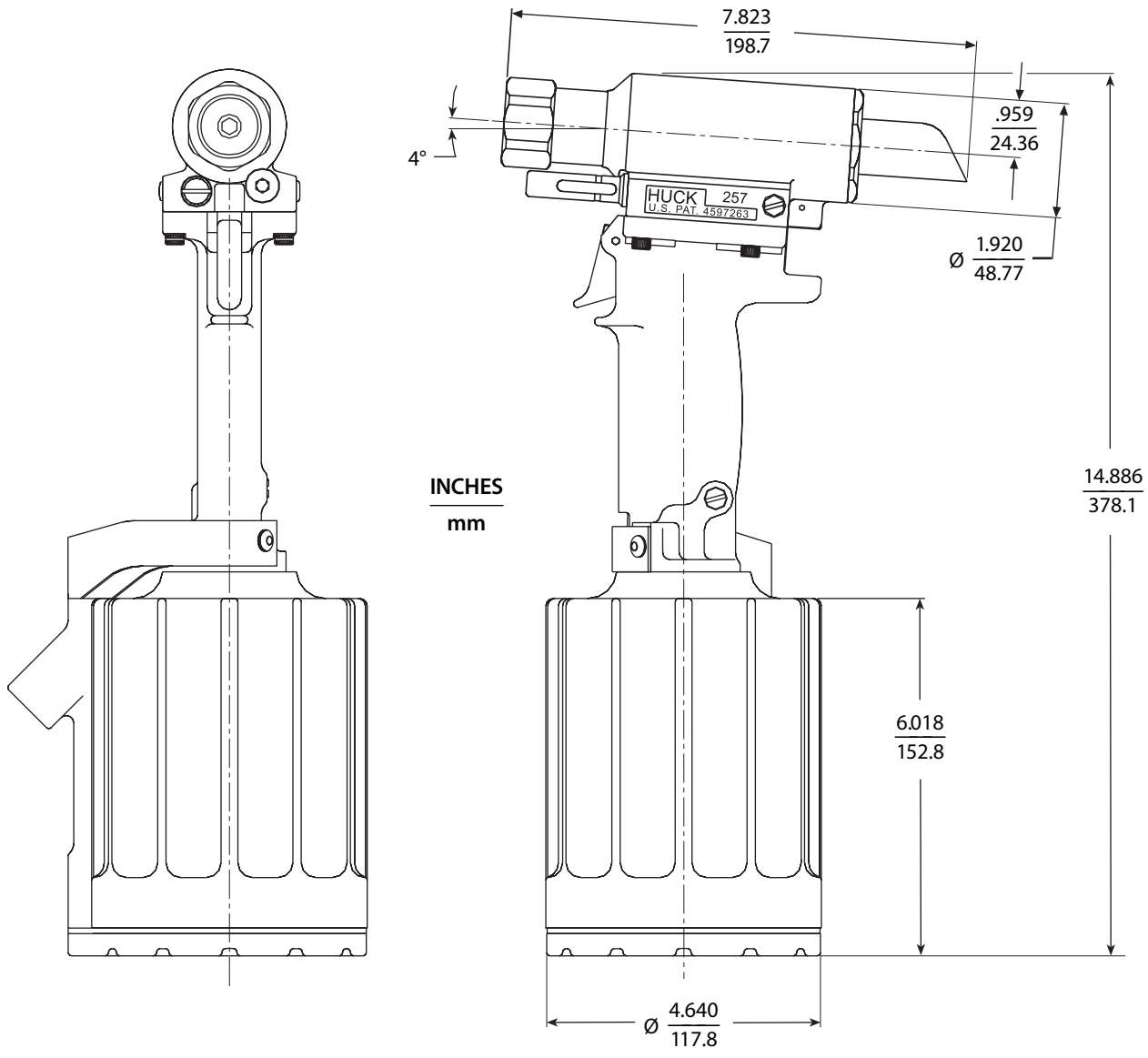
256 Series Tooling



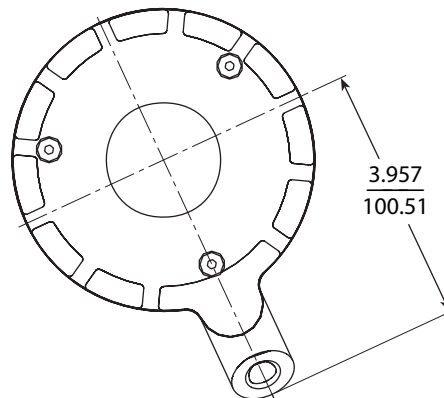
- Stroke:** .875 in
- Weight:** 11.1 lbs
- Air Pressure:** 90-100 psi
- Air Consumption:** 22.4 SCFM
- Capacity:** 9986 lbs @ 90 psi
- Speed/Cycles:** 30 per minute



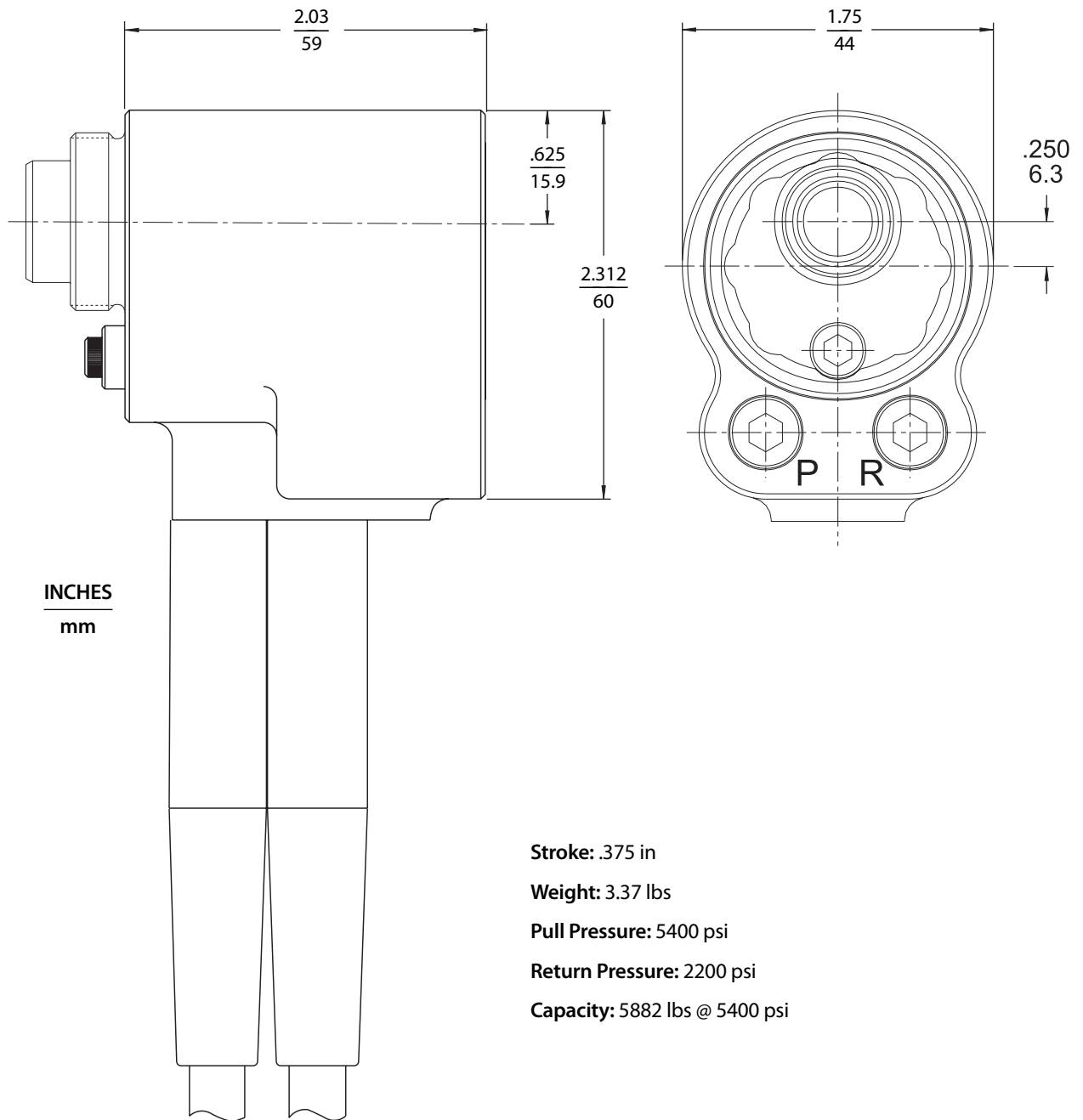
257 Series Tooling



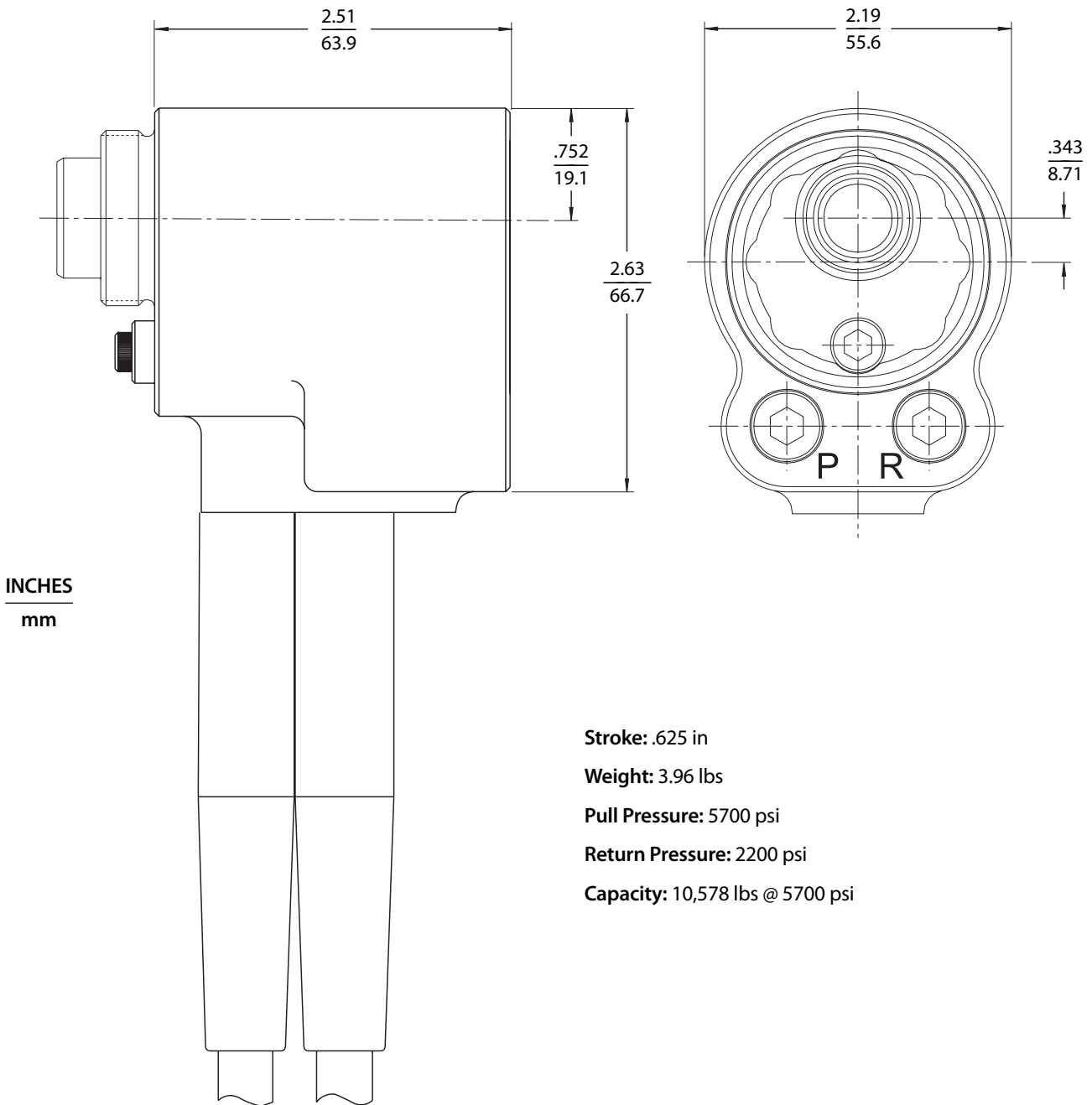
- Stroke:** .875 in
- Weight:** 10.01 lbs
- Air Pressure:** 90-100 psi
- Air Consumption:** 11.5 SCFM
- Capacity:** 5282 lbs @ 90 psi
- Speed/Cycles:** 30 per minute



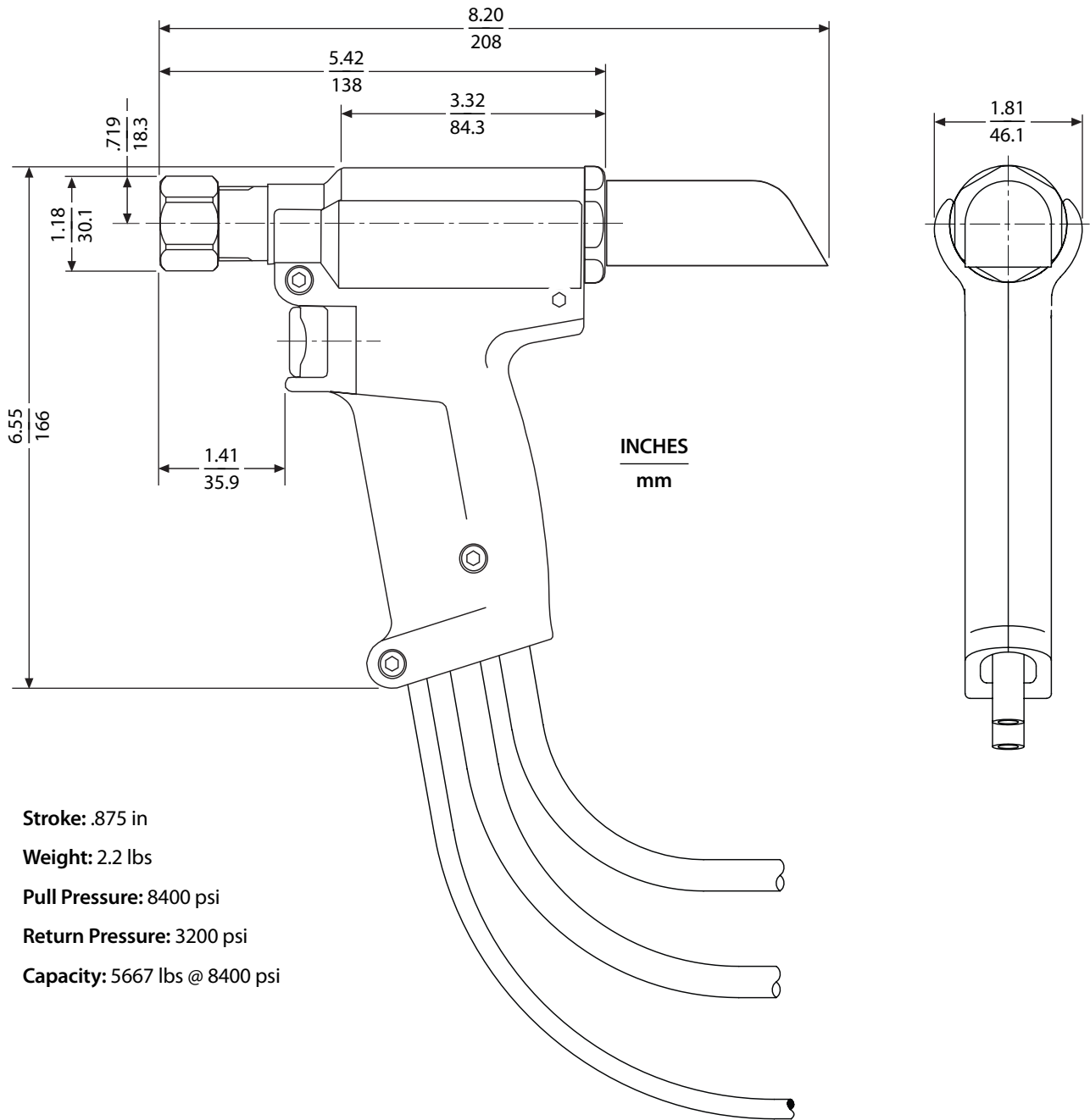
206-375 Series Tooling



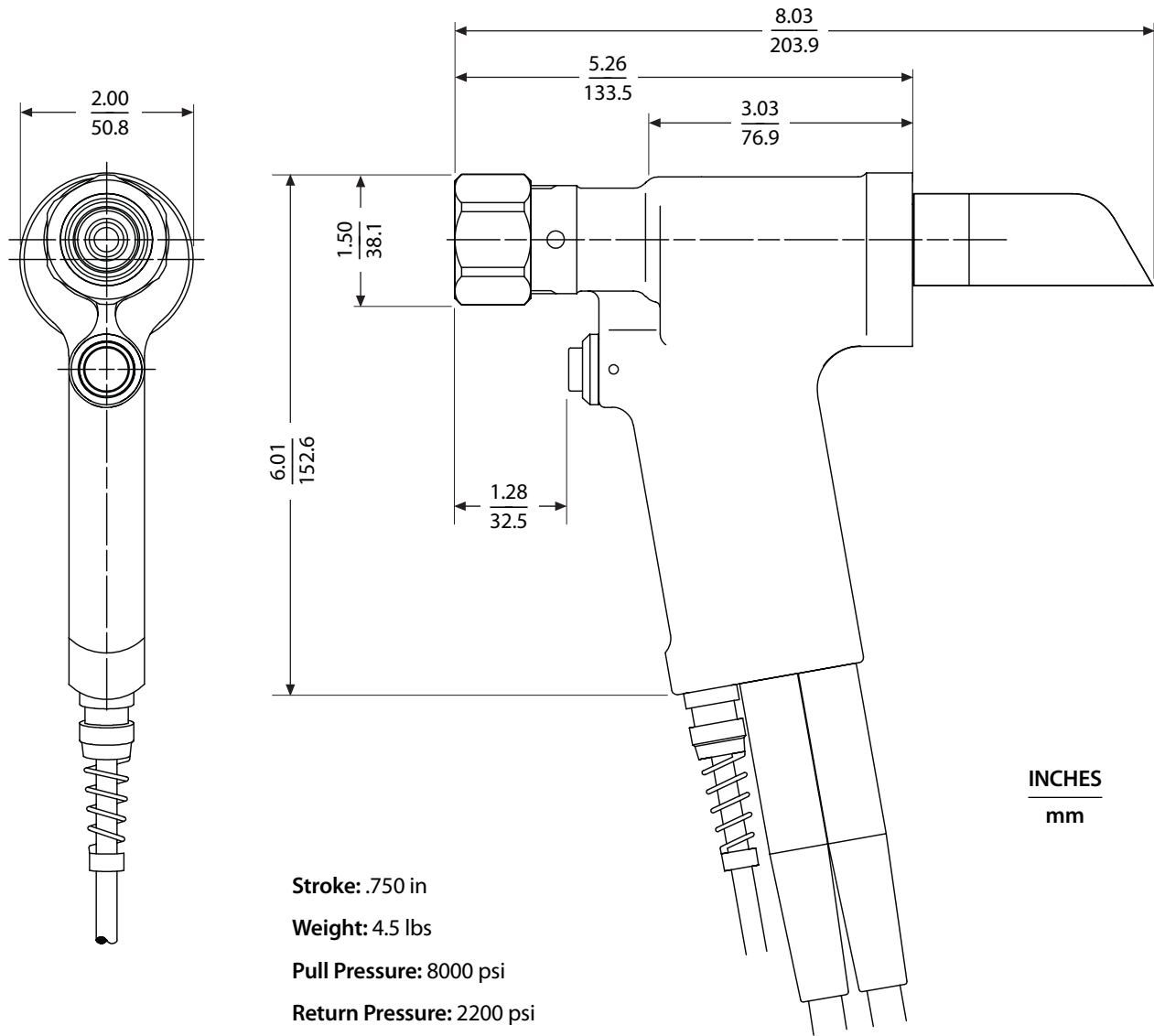
208-625 Series Tooling



2480 Series Tooling

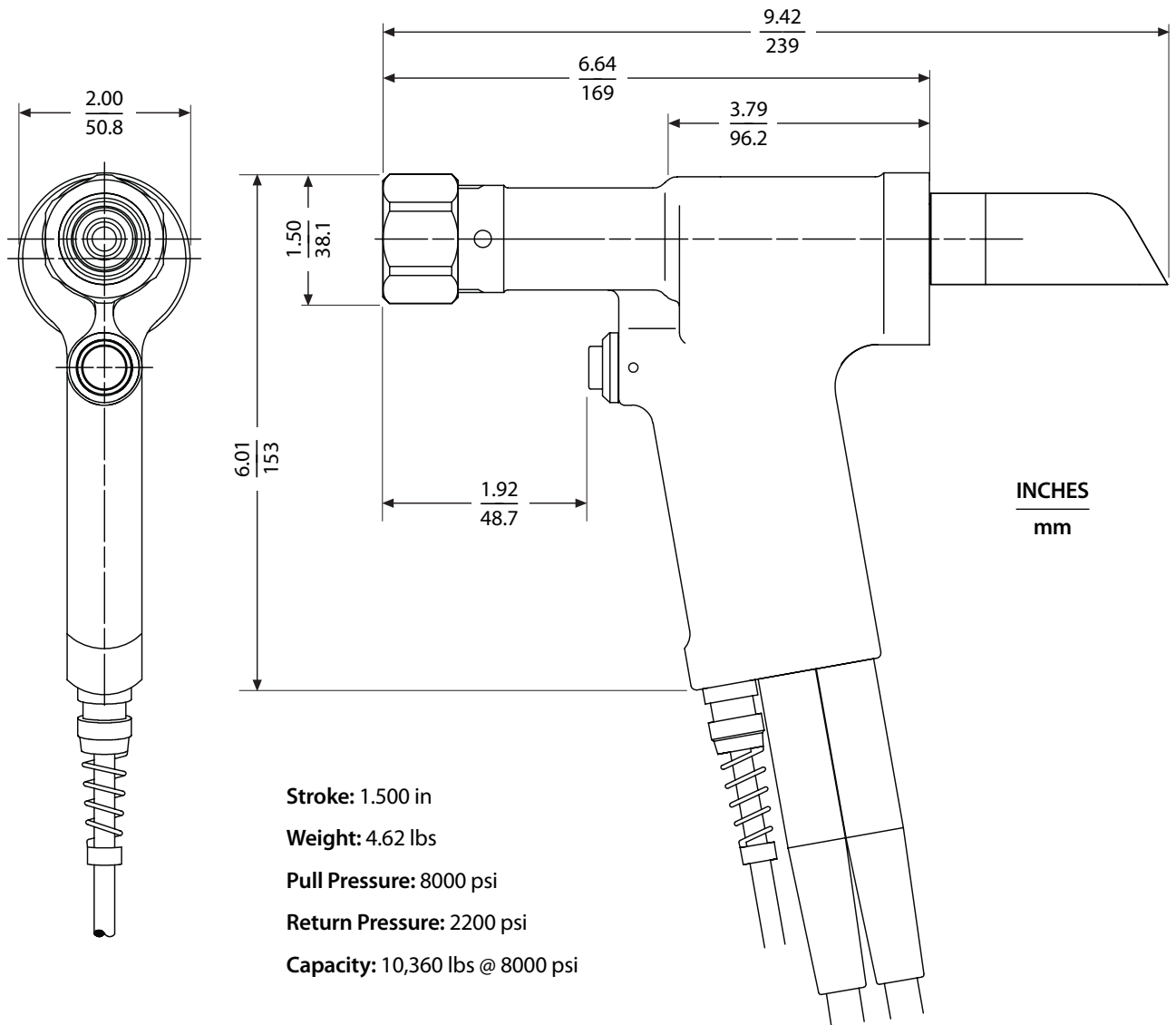


2502 Series Tooling

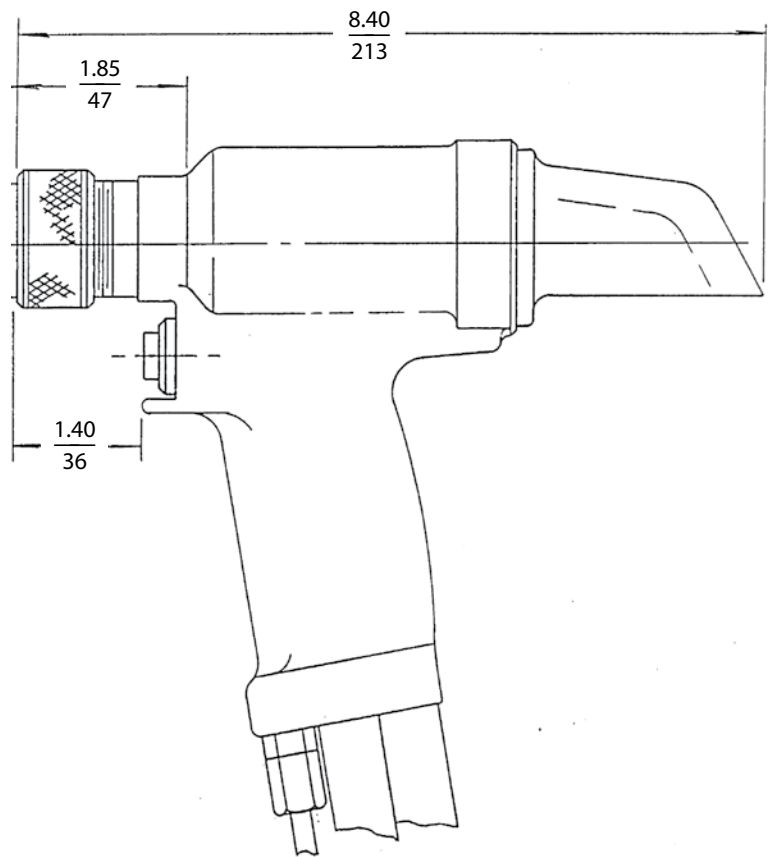
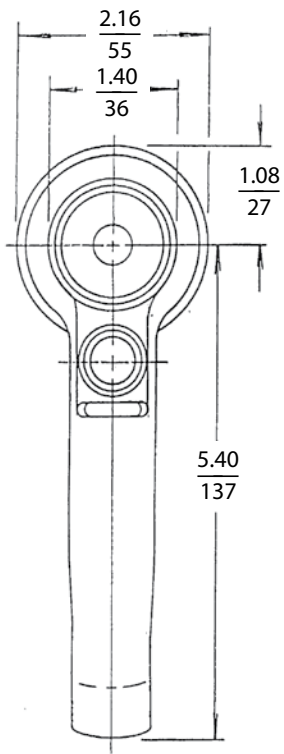


- Stroke: .750 in
- Weight: 4.5 lbs
- Pull Pressure: 8000 psi
- Return Pressure: 2200 psi
- Capacity: 10,360 lbs @ 8000 psi

2503 Series Tooling



2580 Series Tooling



INCHES
mm

Stroke: .937 in

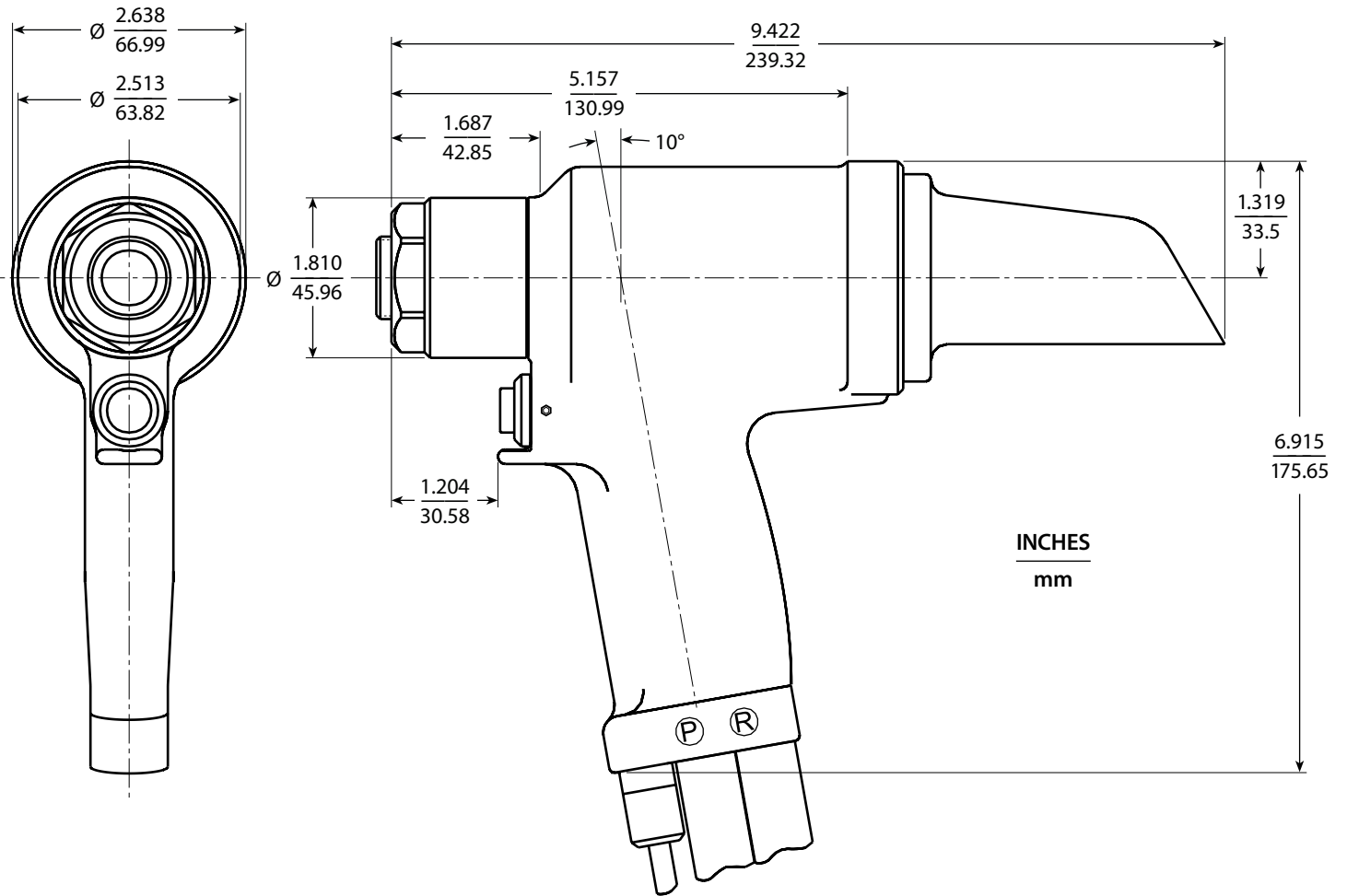
Weight: 6.58 lbs

Pull Pressure: 7400 psi

Return Pressure: 3200 psi

Capacity: 10,700 lbs @ 7400 psi

2600-16 Series Tooling



Stroke: 1.25 in

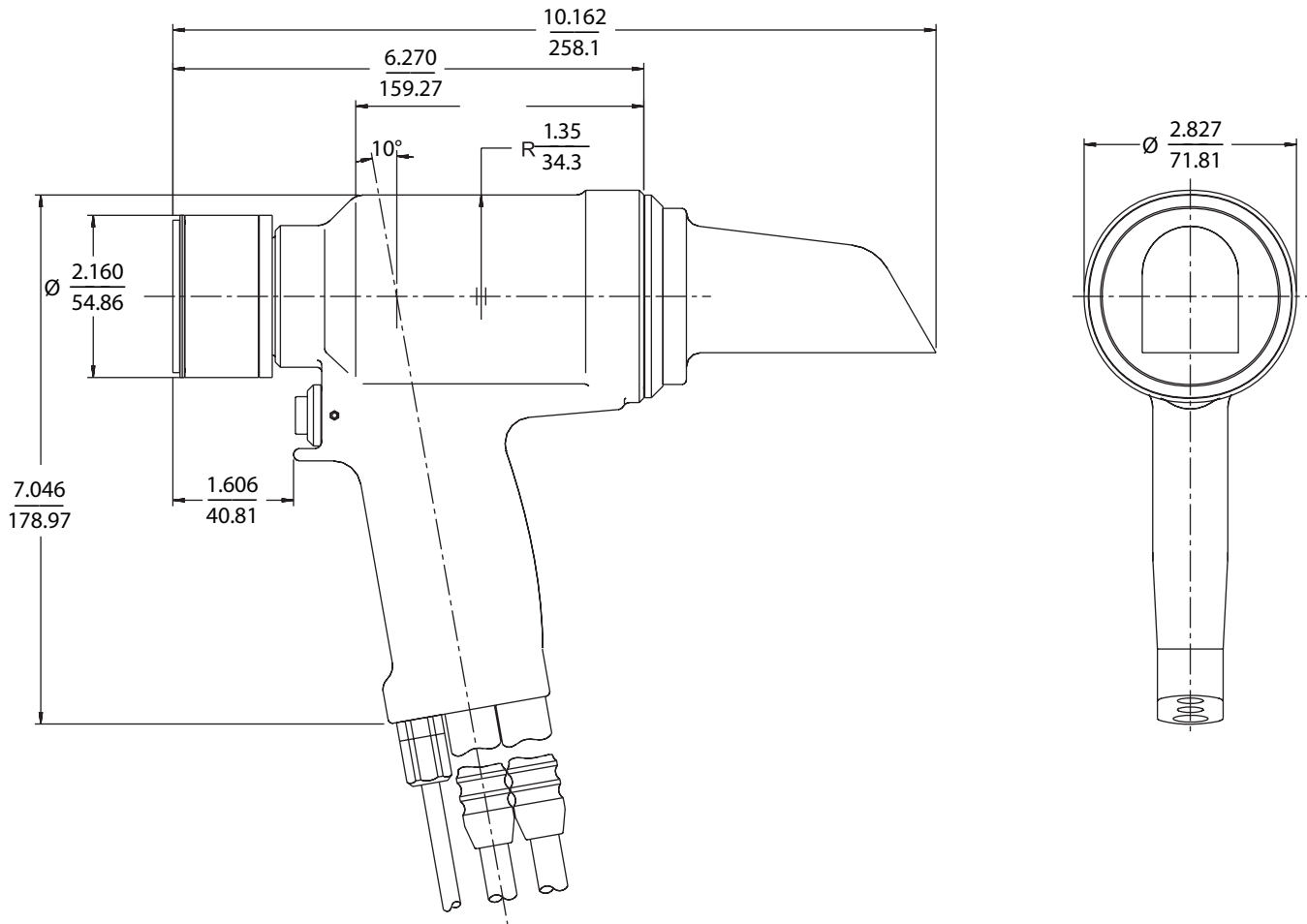
Weight: 7.3 lbs

Pull Pressure: 5700 psi

Return Pressure: 2800 psi

Capacity: 13,840 lbs @ 5700 psi

2620PT Series Tooling



INCHES
mm

Stroke: 1.437 in

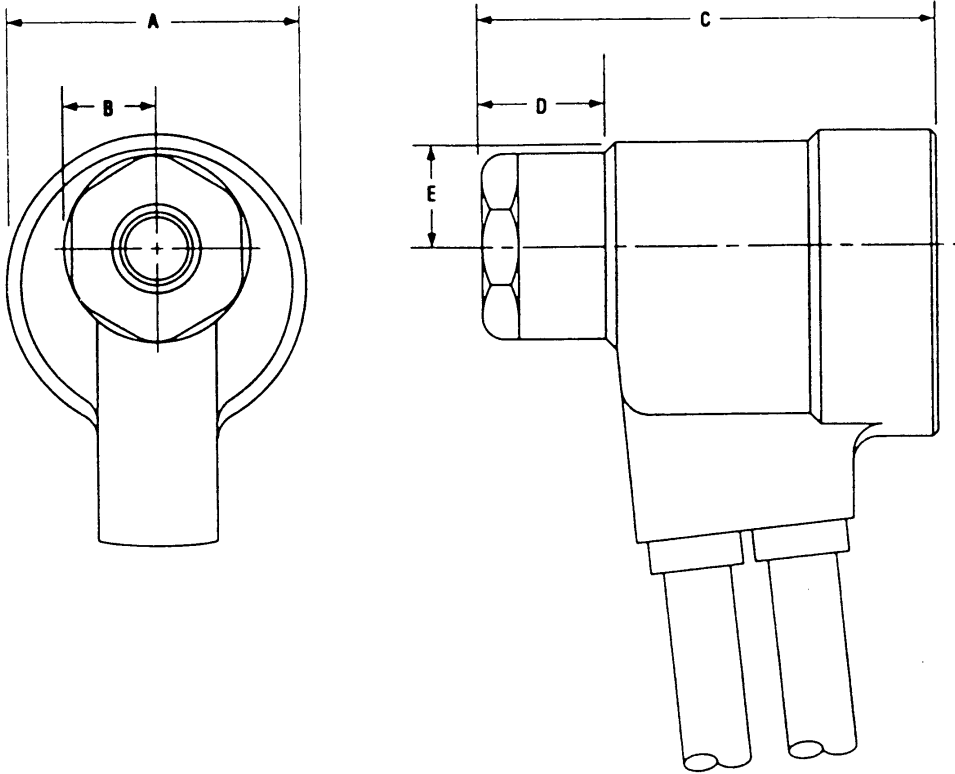
Weight: 9.8 lbs

Pull Pressure: 7400 psi

Return Pressure: 3200 psi

Capacity: 17,745 lbs @ 7400 psi

700 Series Tooling



Model		A	B	C	D	E
706LGP	INCH	1.60	.47	2.57	.60	.54
	mm	41	12	65	15	14
708LGP	INCH	1.79	.53	2.83	.68	.59
	mm	45	13	72	17	15
710LGP	INCH	2.04	.63	3.23	.88	.69
	mm	52	16	82	22	17
712LGP	INCH	2.38	.69	3.60	.90	.79
	mm	60	17	91	23	20
706GP	INCH	1.60	.47	2.66	.69	.54
	mm	41	12	68	18	14
708GP	INCH	1.79	.53	2.92	.76	.59
	mm	45	13	74	19	15
710GP	INCH	2.04	.63	3.31	.97	.69
	mm	52	16	84	25	17
712GP	INCH	2.38	.69	3.65	.90	.79
	mm	60	17	93	23	20

The dimensions shown in the table above are a partial listing of the 700 Series tools; Contact Huck Installation Equipment Division for your specific requirements.

All 706 Series Tools:

Stroke: .375 in

Weight: 3.0 lbs

Capacity: 4150 lbs @ 5400 psi

All 708 Series Tools:

Stroke: .500 in

Weight: 3.5 lbs

Capacity: 5850 lbs @ 5400 psi

All 710 Series Tools:

Stroke: .625 in

Weight: 4.0 lbs

Capacity: 7800 lbs @ 5400 psi

All 712 Series Tools:

Stroke: .750 in

Weight: 4.5 lbs

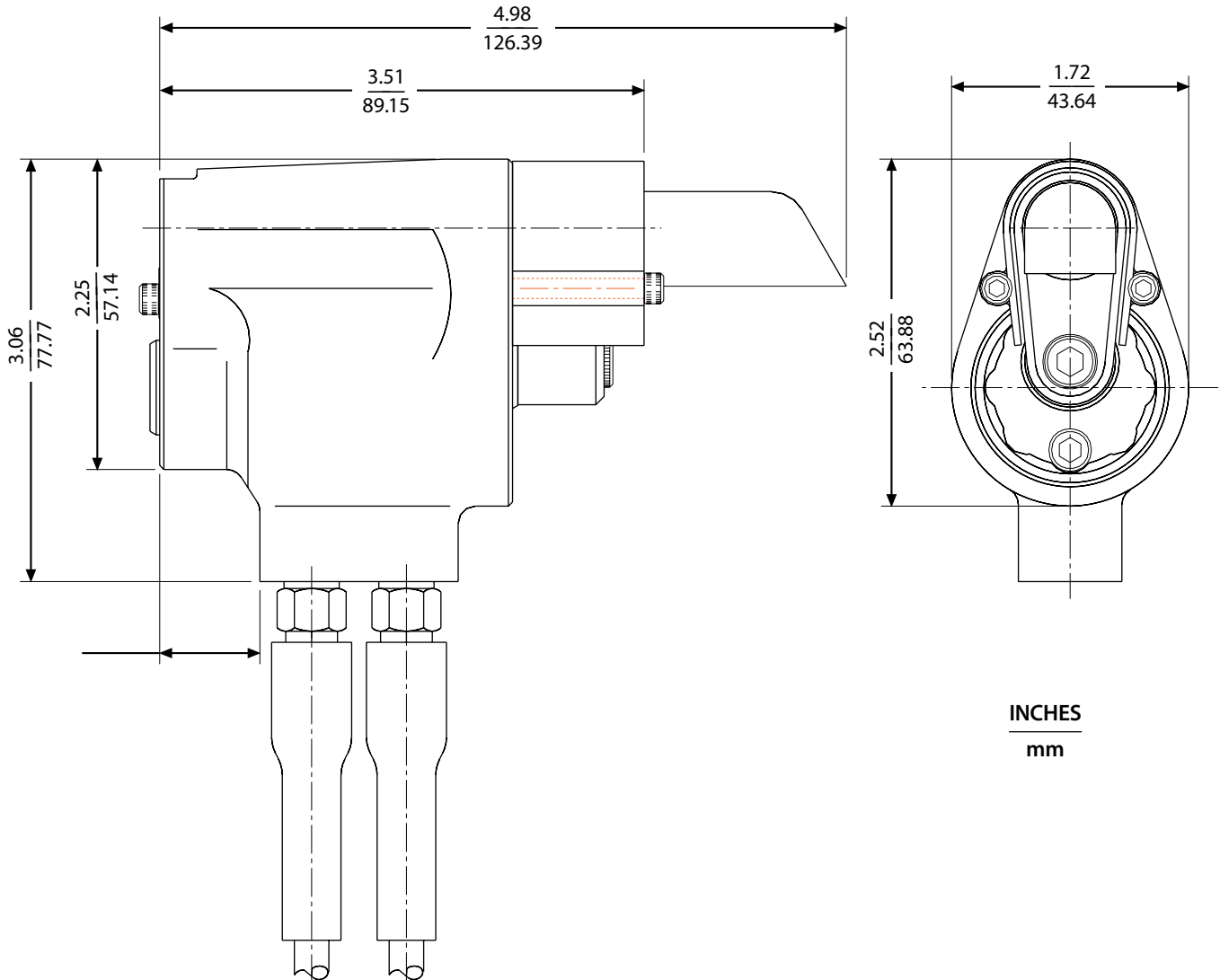
Capacity: 12,000 lbs @ 5400 psi

All 700 Series Tools:

Pull Pressure: 5400 psi

Return Pressure: 2400 psi

7352 Series Tooling



INCHES
mm

- Stroke:** .453
- Weight:** 5.5 lbs
- Pull Pressure:** 5700 psi
- Return Pressure:** 2200 psi
- Capacity:** 5517 lbs @ 5700 psi

End of Section 16



Model 918/918-5

Electrically powered and electrically actuated, twin 2 gpm systems for production applications. Operates 2 tools simultaneously and independently of each other. Powerful enough to operate equipment up to 100 feet from the hydraulic unit. Delivers 8400 psi working pressure. Simple adjustment allows tools requiring different hydraulic pressures to be used. 22 gallon reservoir system with fan radiator air/oil heat exchanger. Unit is semi-portable and can be moved with a fork lift truck.

System: Single open center circuit with 8,400 psi max, 2 gpm each circuit for 918, 1.33 gpm each circuit for 918-5

Pump: Axial 6 piston SPLIT FLOW Constant Displacement Hydraulic Piston Pump direct mounted on motor

Oil Control: Four way solenoid operated Directional Valve, pressure relief valve, and idler valve on each circuit

Reservoir Capacity: 22 gallons (center of sight gauge)

Cooler: Fan and radiator air/oil heat exchanger

Remote Control: 24 volt control circuit

Power Source: 10 HP electric motor 220 or 440 volts, 60 hertz, 3 phase (components shipped with unit allow change over to 220 volts, 60 hertz, 3 phase operation)

Dimensions: 44" long, 25" wide, 30" high

Weight: Dry 585 lbs, operational 708 lbs

Hydraulic Fluid: Fire-resistant hydraulic fluid—Dexron II® or equivalent

Option: 918-5 equipped to operate 3 tools



Model 940

Portable electrically powered, single 70 cu in/min system designed to operate hydraulic installation tools. Delivers 8,400 psi working pressure. Simple adjustable hydraulic outputs. Pump output directional valve is controlled from installation equipment by 24 volt control circuit. Unit automatically turns off when the equipment switch is released and installation cycle is completed.

System: Single open center circuit with 8,400 psi max, 70 cu in/min at 5,000 psi

Pump: 2 stage, gear piston type

Oil Control: Four way solenoid operated Directional Valve

Reservoir Capacity: 1.5 gallons

Remote Control: 24 volt control circuit

Power Source: 1 1/8 hp, 12,000 rpm 115 volt, 50/60 hertz, AC single phase

Dimensions: 12.5" long, 10.5" wide, 18" high

Weight: Dry 66 lbs, operational 74.5 lbs

Hydraulic Fluid: Fire-resistant hydraulic fluid—Dexron II® or equivalent

Options: 940-220 electrical system 220 volt, 50/60 hertz, AC single phase



Model 956

Portable air powered, air actuated single 40 cubic in/min hydraulic power source. Designed to operate hydraulic installation tools identified by a prefix A (ie: A206-375) in the model number. Delivers 8,400 psi working pressure. Hydraulic fluid directional flow is remotely controlled by a trigger in the installation tool. Twin hydraulic pumps operate independently resulting in rapid tool pull piston movement. The unit has a built-in regulator for adjusting hydraulic pressures. Quick disconnect hydraulic couplings and air control socket are included to attach equipment hydraulic hoses and air control tube.

System: Single open center circuit with 8,400 psi max 40 cu in/min at 5,000 psi

Pump: 2 Independent Air Motors Rapid Advance and Swage

Oil Control: Four way air piloted directional valve

Reservoir Capacity: 1.56 qt

Power Source: Compressed air 90-100 psi

Air Consumption: 20 cfm

Dimensions: 12" long, 8" wide, 13.25" high

Weight: Dry 21 lbs, operational 29.75lbs

Hydraulic Fluid: Automatic transmission fluid—Dexron II® or equivalent

Note: The 942 is a low to medium volume production unit for use with all tools prefixed 'A' specifying air trigger option

Custom Designed Hydraulic Systems

Special multi-tool hard plumbed hydraulic systems can be designed to meet customer specific requirements.

Accessories

Pintail Catcher

Model 111247/Model 111247

Model 111247 is a lightweight durable canvas adjustable pintail catcher that is attached to Huck installation tools to catch pintails as they are ejected. Easy to install and easy to empty—eliminates the hazard of walking on loose pintails or leaving them in assembled parts.

Pin Position and Swage Gages

Though visual inspection of pin position and swage is usually adequate, HUCKBOLT® pins and stumps may be checked with Huck gages. Various gages are available, determined by the type and material combination of the installed fasteners.

Grip Gage

Model 105093

Use this gage for determining material thickness and fastener grip length when using NAS Shear and Tension lock-bolts, MS21140 and MS21141 blind fasteners, MS90353 and MS 90354 blind fasteners, and NAS 1919 and NAS 1921 blind fasteners.

Grip Gage

Model 122666

Use this gage for determining material thickness and fastener grip length when using GP® or LGP® Lockbolt fasteners.

Grip Gage

Model 122667

Use this gage for determining material thickness and fastener grip length when using MLGP® Lockbolt fasteners.

Grip Gage

Models G58-1 and G58-2

Simple and accurate gages for determining the required grip length for a prepared hole. The G58-1 is for 1/8 and 5/32 diameter fasteners, the G58-2 is for 3/16 and 1/4 diameter fasteners. For the G58-1 grip equals 1/2" less protrusion, for the G58-2 grip equals 1" less protrusion.

Double Drive Valve

Model 1054

Model 1054 is a special valve for two step fastener installation used with pneumatic and pneudraulic installation tools. The valve attaches to the installation tool at the air inlet where the operator may conveniently select high or low pressure. Double drive refers to a two stage operation where lockbolt pins are first pulled into an interference fit at low pressure, then with the valve set to high pressure, the collar is swaged and installation completed. Huck double drive valves must be used with self-releasing nose assemblies.

Hydraulic Pressure Checking Gauge

Model T-124833

Model T-10280 is a gauge set-up used to set and check the PULL and RETURN pressures on POWERIG® Hydraulic Units. This gauge is a valuable tool for trouble shooting tools and hydraulic units.

Fill and Bleed Unit

Model 970-100

This unit provides a fast and efficient means of filling with hydraulic fluid and bleeding air from Huck pneudraulic installation tools. It is specifically recommended for Models 200, 245, and 246 installation tools.

Shift Setting Kit

Part Number 107569

The preferred method for shift setting—uses a Skidmore-Wilhelm tester to accurately check the spindle load at shift on the Model 200 installation tool.

Shift Setting Kit

Part Number 101300

An alternative method for shift setting—uses a hydraulic pressure gauge to check the hydraulic pressure at shift in pounds per square inch on the Model 200 installation tool.¹

¹ To install double action fasteners, the shift valve of the Model 200 installation tool must be adjusted to insure proper fastener installation.

End of Section 18

Part No.	Nose Assembly Type	Tool Type	Comments
102463	352 style Inline	353, 245, 255	
104406	350, 352 Inline	200	
104627	352 Rotatable Adapter	352	Allows 352 Noses to Rotate
104632	353 Rotatable Adapter	353	Allows 353 Noses to Rotate
113272	Offset for UNIMATIC BR	212, 2480	
113272	99-1500s Rotatable Adapter	245 style	Stroke Limiter 118362 Required
	99-1500s Rotatable Adapter	2502-625	Stroke Limiter Required (call for Part No.)
	99-1500s Rotatable Adapter	2580	Stroke Limiter Required (call for Part No.)
119400-1	99-3700s -05, -06, -08 Offset		Stroke Limiter 118362 Required
	99-1700s -05, -06, -08 Offset		
	99-3700s -05, -06, -08 Offset		Stroke Limiter PR2344 Required
	99-1700s -05, -06, -08 Offset		
120804	99-1500s Rotatable Adapter	245 style	Stroke Limiter 118362 Required
	99-1500s Rotatable Adapter	2580	Stroke Limiter Required (call for Part No.)
121395	Spindle/Piston to fit 230 style Noses	245, 255 style	
122134	99-1700s -10, -12 Lockbolt	2502-625	
	99-1700s -10 Lockbolt	245, 255 style	
122140-G83-1	99-3700s	G83	
122587	99-S456	HK-150	
123437-1	99-1100s Offset BR	202, 2012	
123437-2	HUCKLINCH Offset	202, 2012	
124113	352 style Inline; 1/4 max	206-375, 206-625	
124113-1	3/8 Pass Thru 353 style noses	208-625	
124977	353 style	5901, 2620 style	
125770	99-1500s	208-625	
126358	Anvil & Collet Extension 352 style	202,244	Length 6.00"
126361	Anvil & Collet Extension 352 style	202,244	Length 3.00"
128279	1700 & 3700 Series	202, 244, 2012, 2480	Rotatable Adapter
128279-1	1700 & 3700 Series	206-375	Rotatable Adapter
128361	1900 Series Nose Only	2025, 244	Right Angle Adapter

End of Section 19

Appendix

Limited Warranties

Tooling Warranty

Huck warrants that tooling and other items (excluding fasteners, and hereinafter referred as "other items") manufactured by Huck shall be free from defects in workmanship and materials for a period of ninety (90) days from the date of original purchase.

Warranty on "non standard or custom manufactured products"

With regard to non-standard products or custom manufactured products to customer's specifications, Huck warrants for a period of ninety (90) days from the date of purchase that such products shall meet Buyer's specifications, be free of defects in workmanship and materials. Such warranty shall not be effective with respect to non-standard or custom products manufactured using buyer-supplied molds, material, tooling and fixtures that are not in good condition or repair and suitable for their intended purpose.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. HUCK MAKES NO OTHER WARRANTIES AND EXPRESSLY DISCLAIMS ANY OTHER WARRANTIES, INCLUDING IMPLIED WARRANTIES AS TO MERCHANTABILITY OR AS TO THE FITNESS OF THE TOOLING, OTHER ITEMS, NONSTANDARD OR CUSTOM MANUFACTURED PRODUCTS FOR ANY PARTICULAR PURPOSE AND HUCK SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, DIRECTLY OR INDIRECTLY, ARISING FROM THE USE OF SUCH TOOLING, OTHER ITEMS, NONSTANDARD OR CUSTOM MANUFACTURED PRODUCTS OR BREACH OF WARRANTY OR FOR ANY CLAIM FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Huck's sole liability and Buyer's exclusive remedy for any breach of warranty shall be limited, at Huck's option, to replacement or repair, at FOB Huck's plant, of Huck manufactured tooling, other items, nonstandard or custom products found to be defective in specifications, workmanship and materials not otherwise the direct or indirect cause of Buyer supplied molds, material, tooling or fixtures. Buyer shall give Huck written notice of claims for defects within the ninety (90) day warranty period for tooling, other items, nonstandard or custom products described above and Huck shall inspect products for which such claim is made.

Tooling, Part(s) and Other Items not manufactured by Huck

HUCK MAKES NO WARRANTY WITH RESPECT TO THE TOOLING, PART(S) OR OTHER ITEMS MANUFACTURED BY THIRD PARTIES. HUCK EXPRESSLY DISCLAIMS ANY WARRANTY EXPRESSED OR IMPLIED, AS TO THE CONDITION, DESIGN, OPERATION, MERCHANTABILITY OR FITNESS FOR USE OF ANY TOOL, PART(S), OR OTHER ITEMS THEREOF NOT MANUFACTURED BY HUCK. HUCK SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, DIRECTLY OR INDIRECTLY, ARISING FROM THE USE OF SUCH TOOLING, PART(S) OR OTHER ITEMS OR BREACH OF WARRANTY OR FOR ANY CLAIM FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

The only warranties made with respect to such tool, part(s) or other items thereof are those made by the manufacturer thereof and Huck agrees to cooperate with Buyer in enforcing such warranties when such action is necessary.

Huck shall not be liable for any loss or damage resulting from delays or nonfulfillment of orders owing to strikes, fires, accidents, transportation companies or for any reason or reasons beyond the control of the Huck or its suppliers.

Huck Installation Equipment

Huck International, Inc. reserves the right to make changes in specifications and design and to discontinue models without notice.

Huck Installation Equipment should be serviced by trained service technicians only.

Always give the Serial Number of the equipment when corresponding or ordering service parts.

Complete repair facilities are maintained by Huck International, Inc. Please contact one of the offices listed below.

Eastern USA

One Corporate Drive
Kingston, New York 12401-0250
Telephone (845) 331-7300
FAX (845) 334-7333

Western USA

900 Watsoncenter Road
Carson California 90745
Telephone: 310-830-8200
Fax: 310-830-1436

Contact your nearest Huck International office, see page 104.

In addition to the above repair facilities, there are Authorized Tool Service Centers (ATSC's) located throughout the United States. These service centers offer repair services, spare parts, Service Parts Kits, Service Tools Kits and Nose Assemblies. Please contact your Huck Representative or the nearest Huck office listed on the following page for the ATSC in your area.

A Global Organization

Alcoa Fastening Systems (AFS) maintains company offices throughout the United States and Canada, with subsidiary offices in many other countries. Authorized AFS distributors are also located in many of the world's industrial and aerospace centers, where they provide a ready source of AFS fasteners, installation tools, tool parts, and application assistance.

Alcoa Fastening Systems worldwide locations

Americas

**Aerospace Products
Tucson Operations**
3724 East Columbia
Tucson, AZ 85714
800-234-4825
520-747-9898
FAX: 520-748-2142

**Aerospace Products
Carson Operations**
PO Box 5268
900 Watson Center Rd.
Carson, CA 90749
800-421-1459
310-830-8200
FAX: 310-830-1436

**Industrial Products
Kingston Operations**
1 Corporate Drive
Kingston, NY 12401
800-431-3091
845-331-7300
FAX: 845-334-7333

Europe

Ets De Cergy St. Christophe
BP 58445 Cergy St. Christophe
95807 Cergy-Pontoise
Cedex, France
33-1-34-33-98-00

For more information

800-431-3091

www.alcoafasteningssystems.com

For The Long Haul, The Future of Fastening Technology, The Future of Assembly Technology, The Future of Tooling Technology, and Tools of Productivity are service marks of Huck International.

Huck provides technical assistance regarding the use and application of Huck fasteners and tooling.

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03-23-2010

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