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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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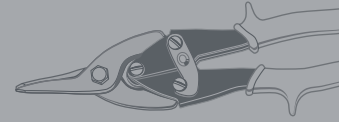


# Sheet Metal Tools/HVAC

Klein's line of HVAC tools make it easy to work with sheet metal, ductwork and tubing. These job-matched tools are proven to stand the test of time with superior results.



For Professionals...  
Since 1857™



## JOURNEYMAN Snips

State-of-the-art, dual-material handles provide a better grip without sacrificing tool strength or durability

Meets or exceeds ASME B107.16M performance standard

Long-lasting serrated forged steel blades for superior strength and durability

Soft touch grips for maximum control and comfort



Tip-Ident™ for easy identification

Hard, colored material for toughness and durability

Premium corrosion – resistant plated handles

Self opening latch



US Patents: D623498, D631322

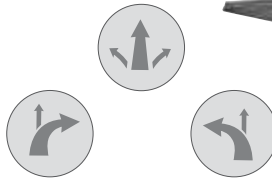
## Aviation Snips

### Additional Features:

- J1100L, J1101R, J1102S Journeyman snips cut 18 gauge cold rolled steel and 22 gauge stainless steel
- J2103S Journeyman Bulldog snips cut 16 gauge cold rolled steel and 18 gauge stainless steel



J1101R



J1102S



J1100L

Cat. No.	Cutting Pattern	Snip Type	Cutting Length	Color Code	Cutting Capacity: Cold Rolled/Stainless Steel	Overall Length	Weight
J1100L	Left/Straight	Aviation	1-3/8" (34.9 mm)	Red/Black	18 Gauge/22 Gauge	9-7/8" (250.8 mm)	14.4 oz. (408 g)
J1101R	Right/Straight	Aviation	1-3/8" (34.9 mm)	Green/Black	18 Gauge/22 Gauge	9-7/8" (250.8 mm)	14.7 oz. (417 g)
J1102S	Straight/Wide Curves	Aviation	1-1/2" (38.1 mm)	Yellow/Black	18 Gauge/22 Gauge	10-1/16" (255.6 mm)	14.4 oz. (408 g)
J2103S	Notch/Straight	Bulldog	7/8" (22.2 mm)	Yellow/Black	16 Gauge/18 Gauge	9-7/16" (239.7 mm)	13.9 oz. (394 g)

## Right Angle Snips

### Additional Features:

- J2104L, J2105R Journeyman snips cut straight, curves, and tight circles in 24 gauge cold rolled steel and 28 gauge stainless steel
- Makes cutting easier in confined spaces (in ductwork, reaching through openings or against a wall)

Cat. No.	Cutting Pattern	Snip Type	Cutting Length	Color Code	Cutting Capacity: Cold Rolled/Stainless Steel	Overall Length	Weight
J2104L	Left Curves/Tight Circles/Straight	Right Angle	1-1/4" (31.8 mm)	Red/Black	24 Gauge/28 Gauge	7-15/16" (201.6 mm)	14.4 oz. (408 g)
J2105R	Right Curves/Tight Circles/Straight	Right Angle	1-1/4" (31.8 mm)	Green/Black	24 Gauge/28 Gauge	7-15/16" (201.6 mm)	14.4 oz. (408 g)



J2105R



J2104L

See page 310 for additional information on warnings.



**JOURNEYMAN™**

**Cutting & Notching Tools**

**Offset Snips**

**Additional Features:**

- J2100L, J2101R, J2102S and J2106S snips feature exclusive Klein Kurve™ handles for natural hand positioning and ease of use
- J2106S Journeyman snips cut 20 gauge cold rolled steel and 24 gauge stainless steel, with a 2-3/8" length of cut for faster cutting
- J2100L, J2101R, J2102S Journeyman snips cut 18 gauge cold rolled steel and 22 gauge stainless steel



Cat. No.	Cutting Pattern	Snip Type	Cutting Length	Color Code	Overall Length	Cutting Capacity: Cold Rolled/Stainless Steel	Weight
J2100L	Left/Straight	Offset	1-1/4" (31.8 mm)	Red/Black	9-1/2" (241.3 mm)	18 Gauge/22 Gauge	15.5 oz. (439 g)
J2101R	Right/Straight	Offset	1-1/4" (31.8 mm)	Green/Black	9-1/2" (241.3 mm)	18 Gauge/22 Gauge	15.7 oz. (445 g)
J2102S	Straight/Wide Curves	Offset	1-1/2" (38.1 mm)	Yellow/Black	9-1/2" (241.3 mm)	18 Gauge/22 Gauge	15.5 oz. (439 g)
J2106S	Straight/Wide Curves	Long Cut Offset	2-3/8" (60.3 mm)	Yellow/Black	10-1/2" (266.7 mm)	20 Gauge/24 Gauge	1.1 lbs. (0.50 kg)

**Cutting & Notching Tools**

**Aviation Snips - Regular/Offset/Bulldog**

- Forged and heat-treated steel blades for strength and durability
- Regular and offset blades have the capacity of cutting 18 gauge cold-rolled sheet metal and 22 gauge stainless steel sheet metal
- Offset blades provide ease of cutting tight curves and keep user's hand away from metal
- Bulldog snips (Cat. No. 2103) for notching or trimming 16 gauge cold-rolled sheet metal and 18 gauge stainless steel sheet metal
- Spring-loaded for self-opening action
- Latch keeps jaws closed when not in use
- Hardened handles for extra strength
- Contoured plastic handles are comfortable and color-coded by cutting pattern

Cat. No.	Cutting Pattern	Snip Type	Cutting Length	Color Code	Overall Length	Cutting Capacity	Weight
1100L	Left/Straight	Aviation	1-3/8" (34.9 mm)	Red	9-3/4" (247.7 mm)	18 Gauge	14.4 oz. (408 g)
1101R	Right/Straight	Aviation	1-3/8" (34.9 mm)	Green	9-3/4" (247.7 mm)	18 Gauge	14.7 oz. (417 g)
1102S	Straight/Wide Curves	Aviation	1-1/2" (38.1 mm)	Yellow	10-1/8" (257.2 mm)	18 Gauge	14.4 oz. (408 g)
2100L	Left/Straight	Offset	1-1/4" (31.8 mm)	Red	9-1/2" (241.3 mm)	18 Gauge	15.5 oz. (439 g)
2101R	Right/Straight	Offset	1-1/4" (31.8 mm)	Green	9-1/2" (241.3 mm)	18 Gauge	15.7 oz. (445 g)
2102S	Straight/Wide Curves	Offset	1-1/2" (38.1 mm)	Yellow	9-1/2" (241.3 mm)	18 Gauge	15.5 oz. (439 g)
2103	Notch	Bulldog	7/8" (22.2 mm)	Yellow	9-1/4" (235 mm)	16 Gauge	13.9 oz. (394 g)



**Replacement springs for aviation snips**

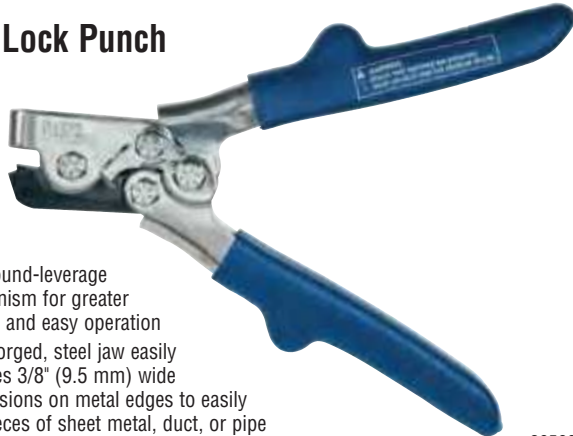
Cat. No.	Description
P-406	Replacement Spring, Cat. No. 1100L, 1102S
P-407	Replacement Spring, Cat. No. 1101R





## Cutting & Notching Tools

### Snap Lock Punch



86560

- Compound-leverage mechanism for greater control and easy operation
- Drop-forged, steel jaw easily punches 3/8" (9.5 mm) wide impressions on metal edges to easily join pieces of sheet metal, duct, or pipe
- All-steel construction and nickel-chrome plated hardware provide long life and durability
- Vinyl grips with handle stops for added comfort and easy operation

Cat. No.	Overall Length	Handle Color	Weight
86560	8" (203.2 mm)	Blue	1.0 lbs. (0.45 kg)

### Hand Notcher



86551

- Allows quick, clean, 30° "V" shaped cuts in sheet metal
- Drop-forged, high-impact steel jaw with 13/16" (21 mm) maximum throat depth
- Jaws' hook design allows easy notching of corners and take-off tabs without slippage
- All steel construction with nickel-plate and black-oxide finish provides long life and durability
- Hardened steel handles include hand guards and are covered with vinyl grips for added comfort and easy operation

Cat. No.	Overall Length	Handle Color	Weight
86551	8-1/2" (215.9 mm)	Blue	1.0 lbs. (0.45 kg)

### Lightweight Tinner Snips

- 6° angled, hollow-ground cutting edge for cutting full 3-1/2" (89 mm) straight cuts and wide curves
- Easily replaceable cutting blades made of high-carbon steel
- Cutting capacity: 22 gauge cold-rolled sheet metal; 26 gauge stainless steel sheet metal. Do not use to cut hardened wire, nails, or any other rounded surface
- Lightweight magnesium handles



3100

Cat. No.	Overall Length	Handle Color	Weight
3100	13" (330.2 mm)	Gray	13.4 oz. (380 g)

Cat. No.	Description
3101	Replacement Blades for Tinner Snips

## Seaming & Folding Tools

### Seamers - Straight and Offset

- Compound-leverage mechanism easily and accurately bends, seams, and flattens sheet metal and non-ferrous metals
- Jaw marked in 1/4" (6 mm) increments for precise bending measurements
- All-steel construction and nickel-chrome plated hardware provide long life and durability
- Vinyl grips with handle stops for added comfort and easy operation
- Straight-handle model is used for most general applications
- Offset-handle model (not pictured) is for use in overhead or confined areas
- Broader jaw model for forming wider folds
- Folds 22 gauge CRSM and 24 gauge SSSM



86553

Cat. No.	Type	Jaw Size	Overall Length	Handle Color	Weight
86553	Straight-Hand Seamer	3" (76.2 mm)	8-3/8" (212.7 mm)	Blue	1.5 lbs. (0.68 kg)
86552	Offset-Hand Seamer	3" (76.2 mm)	8" (203.2 mm)	Blue	1.5 lbs. (0.68 kg)



## Seaming & Folding Tools

### Folding Tools

- Two folding depths: 3/8" (10 mm) and 1" (25 mm)
- Handy sight gauges for accurate depth alignment
- Made of heavy-duty 16 gauge steel for folding strength



Cat. No.	Overall Length	Folds	Weight
88981	18" (457.2 mm)	24 Gauge CRSM and 28 Gauge SSSM	2.0 lbs. (0.91 kg)

88981

## Tube Benders & Cutters

### Professional 4-in-1 Tube Bender

- Bends four popular tube sizes
- Calibrated markings for accurate left-hand, right-hand, and offset bends up to 90°
- For soft copper, aluminum, and steel tubing
- Bends 3/16", 1/4", 5/16" and 3/8" (6 mm and 8 mm) O.D. tubing



89030

Cat. No.	Closed Overall Length	Weight
89030	10" (254 mm)	1.0 lbs. (0.45 kg)

### Professional Tube Cutter

- Accurate 4 roller tracking system - no spiraling
- Professional reaming tool for stainless steel tubing
- Extra cutting wheel included in handle



88904

Cat. No.	Overall Length	Cuts	Weight
88904	6-1/32" (153.2 mm)	1/8" to 1-3/8" (3.2 to 34.9 mm) Steel and Copper Tubing	1.3 lbs. (0.59 kg)

Cat. No.	Description	Weight
88905	Replacement Wheel for Tube Cutter	1.3 oz. (37 g)

### Professional Mini Tube Cutter

- Perfect for tight space cutting. Requires only 1-3/8" (34.9 mm) swing radius
- Smooth feed mechanism for precise, right angle cutting action
- For copper and aluminum tubing; not designed for cutting stainless steel or hard tempered tubing



88978



88977

Cat. No.	Cuts	Overall Length	Weight
88977	1/8" to 5/8" (3.2 to 15.9 mm) O.D. Tubing	1-3/4" (44.5 mm)	2.5 oz. (71 g)

Cat. No.	Description	Weight
88978	Wheels and Screw for Mini Tube Cutter	2.5 oz. (71 g)



## Swaging Tool – Punch Type

### Professional 6-in-1 Swaging Punch

- Swages six sizes of tubing
- Hex design for ease of extraction
- Precision machined surface for ease of forming
- High-alloy steel, heat-treated for strength and durability



66400

Cat. No.	Swages	Overall Length	Weight
66400	3/16" (4.8 mm), 1/4" (6.4 mm), 5/16" (7.9 mm), 3/8" (9.5 mm), 1/2" (12.7 mm), 5/8" (15.9 mm) O.D. Tubing	5-13/16" (147.6 mm)	5.9 oz. (167 g)

## Duct Stretcher

### Duct Stretcher

- Aligns and pulls ductwork together, easing installation of drive cleats
- Offset handle protects hand



89565

Cat. No.	Overall Length	Weight
89565	16" (406.4 mm)	12.0 oz. (340 g)

## Crimping Tools

### 5-Blade Crimper

- Produces factory-precision indentations in stove pipe and round duct with just a squeeze
- Compound-leverage mechanism, heavy-duty jaw/handle linkage, and closing stop provide easy operation and consistent crimps for virtually leak-proof connections
- Hardened steel handles include hand guards covered with vinyl grips for added comfort and easy operation
- All steel construction and nickel-plating provide long life and consistent crimp profile



86550

Cat. No.	Crimps	Overall Length	Handle Color	Weight
86550	24 Gauge CRSM and 28 Gauge SSSM	9" (228.6 mm)	Blue	1.0 lbs. (0.45 kg)

## Refrigeration Wrenches

### Ratcheting Refrigeration Wrenches

- Fully reversible for refrigeration-packing gland nuts, valve stem sockets and beam-clamp installation
- Compact in size, with clearly marked sockets for four nut sizes
- Quick-flip reversing lever permits instant ratchet reversal
- Ruggedly built with polished chrome finish for smooth edges for comfort



68310

Cat. No.	Socket Size	Overall Length	Weight
68309	3/16" and 1/4" Sq. x 1/2" and 9/16" Hex	6-13/16" (173.0 mm)	6.9 oz. (196 g)
68310	3/16" and 5/16" Sq. x 1/4" and 3/8" Sq.	5-1/2" (139.7 mm)	3.2 oz. (91 g)



## Magnetic Hex Drivers

### Magnetic Hex Drivers

- For driving sheet metal screws
- Strong Rare Earth magnets for maximum holding
- 1/4" (6.4 mm) hex shank with quick release groove



86602

Cat. No.	Description	Overall Length	Weight
<b>3-Pack</b>			
86600	1/4" Magnetic Hex Drivers Pk 3	1-3/4" (44.5 mm)	1.9 lbs. (0.86 kg)
86601	5/16" Magnetic Hex Drivers 3 pack	1-3/4" (44.5 mm)	2.2 oz. (62 g)
86602	3/8" Magnetic Hex Drivers 3 pack	1-3/4" (44.5 mm)	2.6 oz. (74 g)
<b>10-Pack Punch Card for Individual Sale</b>			
8660010	1/4" Magnetic Hex Drivers Pk 10	1-3/4" (44.5 mm)	6.9 oz. (196 g)
8660110	5/16" Magnetic Hex Drivers 10 pack	1-3/4" (44.5 mm)	7.8 oz. (221 g)
8660210	3/8" Magnetic Hex Drivers 10 pack	1-3/4" (44.5 mm)	9.1 oz. (258 g)

## Nylon Tie Tensioning Tools

### Nylon Tie Tensioning Tools

- Designed for work with ties rated at 120 - 250 lbs. (54 - 113 kg)
- Tensions up to 65 lbs. of force (30 kg)
- Maximum tie width of 15/32" (12 mm)
- Handle grips for comfort
- Excess tie material is automatically cut off (Cat. No. 86571 only)

Cat. No.	Description	Weight
86570	Nylon Tie Tensioning Tool	13.9 oz. (395 g)
86571	Nylon Tie Tensioning Tool Auto Cutoff	1.0 lbs. (0.45 kg)



86571



86570

## Special-Purpose Knife

### Special-Purpose Knife

- Cuts duct board and flexible duct
- Double-edged knife: regular and serrated
- Cushion-grip handle for comfort
- Includes puncture resistant nylon sheath with belt loop



DK06



Cat. No.	Blade Material	Blade Length	Weight
DK06	Stainless Steel	5-1/2" (139.7 mm)	8.5 oz. (241 g)





## Specialty Screwdrivers

### 15-in-1 Screwdriver/Nut Drivers

- Multi-bit driver includes 14 different screwdriver tips plus a 1/4" (6.4 mm) nut driver
- Internal storage for screwdriver bits

**NEW!**



32290



Internal Storage



Cat. No.	Description	Shank Length	Slotted Bits	Phillips Bits	Square Bits	Nut Driver Sizes	TORX Bits	Other Bits	Overall Length	Weight
32292 <b>NEW!</b>	HVAC Multi-Bit Screwdriver 15 Pc	4" (101.6 mm)	4 mm, 6 mm	#0, #1, #2, #3	#1, #2	1/4"	#10, #15, #20, #25	Schrader® Valve Insertion, Core Removal	8-1/2" (215.9 mm)	8.0 oz. (227 g)

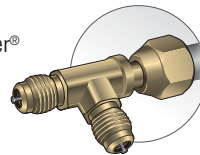
Schrader® is a registered trademark of Schrader-Bridgeport International, Inc.

### 11-in-1 Screwdriver/Nut Driver with Schrader® Valve Removal/Installation Bit

- Great for HVAC and other industrial applications
- Includes unique style bit for installation/removal of common TR-4 Schrader® valves and aggressive thread extractor tip for backing out broken cores



32527



Cat. No.	Shank Length	Slotted Bits	Phillips Bits	Square Bits	Nut Driver Sizes	Other Bits	Overall Length	Weight
32527	4" (101.6 mm)	1/4" (6.4 mm) and 3/16" (4.8 mm)	#1 and #2	#1 and #2	3/8", 5/16" and 1/4"	Schrader® Valve Core Removal/Installation - Extractor	7-3/4" (196.9 mm)	7.0 oz. (198 g)

Schrader® is a registered trademark of Schrader-Bridgeport International, Inc.

### 2-in-1 Hex Head Screwdriver

- 1/4" and 5/16" six-point hex nut driver
- Powerful magnets for maximum fastener retention
- Solid build quality; feels like a conventional nut driver
- Color coded bands for easy identification
- Wrench-assist to help remove stubborn fasteners

**NEW!**



65064

Cat. No.	Tip Type	Tip Size	Shank Length	Overall Length	Weight
65064 <b>NEW!</b>	Hex	1/4" x 5/16" (6.4 x 7.9 mm)	3-5/8" (92.1 mm)	8" (203.2 mm)	7.2 oz. (204 g)

### 10-in-1 Folding Screwdriver/Nut Driver

**10-FOLD™**

- Conveniently folds up for easy storage or to fit into your pocket
- Each driver arm contains four interchangeable bit styles and two nut drivers
- Unfold each driver arm up to a full 180° for straight on driving power, or at 90° for extra leverage on stubborn fasteners
- The quick release button easily unlocks a fully extended driver arm



32534



Cat. No.	Handle Color	Slotted Bits	Phillips Bits	Square Bits	Nut Driver Sizes	Other Bits	Weight
32534	Blue	1/4" (6.4 mm) and 3/16" (4.8 mm)	#1 and #2	#1 and #2	5/16" and 1/4"	Valve Core Removal/Installation - Extractor	5.9 oz. (167 g)

Schrader® is a registered trademark of Schrader-Bridgeport International, Inc.  
TORX® is a registered trademark of Acument Intellectual Properties, LLC.

See page 310 for additional information on warnings.



## Hammers

### Setting Hammer

- Durable epoxy resin handle helps to protect neck from fraying and splintering if incorrectly struck or over struck
- High-strength fiberglass shaft absorbs shock and keeps head tight
- Cushioned, PVC grip bonded to handle
- Special high-carbon steel, octagon shaped head with flat striking surface and rounded cross peen



820-16

Cat. No.	Head Weight	Overall Length	Weight
820-16	16.0 oz. (454 g)	13" (330.2 mm)	1.6 lbs. (0.73 kg)

### Riveting Hammer

- High-carbon steel round head is forged and hardened
- Flat striking surface with rounded cross peen
- Straight-grain American hickory handle is stained and lacquered



821-12

Cat. No.	Head Weight	Overall Length	Weight
821-12	12.0 oz. (340 g)	12-1/4" (311.2 mm)	1.1 lbs. (0.50 kg)

### Dead Blow Hammers

- Durable, abrasion resistant non-marring hammer face
- Increased striking force with zero impact rebound
- Design isolates user from striking impact and reduces fatigue
- 40% more driving power than other dead blow hammers
- Protects job surface from damage
- Applications: HVAC, metal fabrication, electronics, oil and mining, wood and metal assembly, automotive, aerospace



811-16



Cat. No.	Head Weight	Overall Length	Weight
811-16	16.0 oz. (454 g)	12-1/2" (317.5 mm)	1.4 lbs. (0.64 kg)
811-32	32.0 oz. (907 g)	18" (457.2 mm)	1.8 lbs. (0.82 kg)