

**Cleco**<sup>®</sup>  
Production Tools

**HERMES**   
THE TOOL COMPANY





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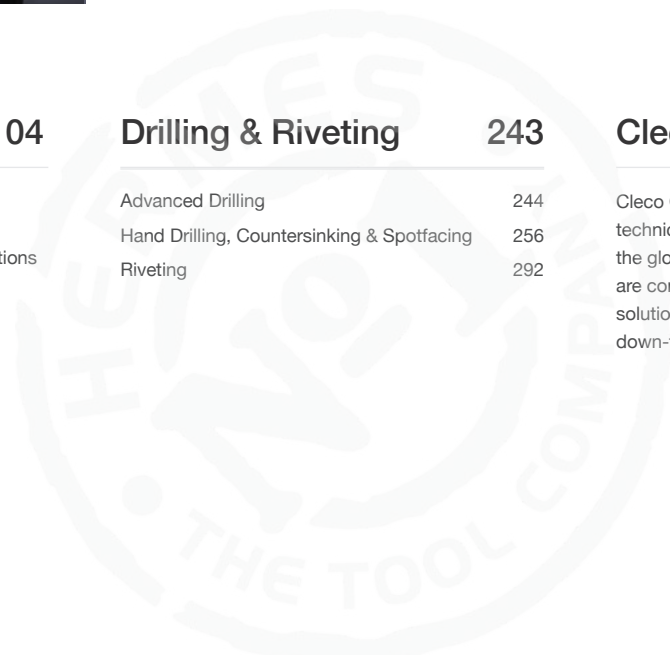
Since inception, Cleco has grown to become a global manufacturing solutions provider, headquartered in the United States, with locations across North America, Europe and Asia.

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Cleco Care provides a wide range of continued technical support and product expertise around the globe. Our Cleco Care Global Service Centers are committed to providing data-driven customer solutions to reduce total cost of ownership and down-time on your line.



# Manufacturing and delivering world-class assembly solutions for over 120 years



## as Cleveland Pneumatic Tool Company in Cleveland, Ohio.

Since inception, Cleco has grown to become a global manufacturing solutions provider, headquartered in the United States, with locations across North America, Europe and Asia. As our product offerings expanded globally, we transitioned trusted and recognized brands for fixtured assembly solutions (DGD) and material removal and drilling (Master Power, Recoules Quackenbush and Dotco) to our Cleco Production Tools brand umbrella. Combining our brands enhances our extensive history as a solutions provider, while providing clarity and an improved experience for our customers.

Throughout our over 120-year history, we have provided innovative tool solutions for the following industries:

- Automotive
- Aerospace
- Appliances, Electronics & Industrial Assembly
- Agriculture & Off-Road
- Oil, Gas & Petrochemical

## Using technology for industry-leading tool solutions.

Our advanced tool and assembly solutions enhance user experience and increase productivity, providing powerful results for your company. We leverage new technology to increase tool accuracy, traceability, ergonomics and safety.



## Quality production tools for industry.

As a leading tool manufacturer, Cleco offers trusted tool solutions across numerous industries. Whether your company constructs high-tech automobiles, assembles planes for leading aviation projects, produces appliances or builds earth-moving equipment, you can count on Cleco Production Tools for intelligent assemblies and world-class tools.

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# Precision and accuracy for portable automatic drilling

Rely on powerful tools designed for **aerostructure drilling and assembly**

Major aerospace manufacturers rely on Cleco's configured advanced drilling solutions for quality-critical applications. Our tools drill precision holes for fasteners ensuring the accuracy required for a critical part of the assembly process.



## A of tool options.

Cleco has the widest range of configurable solutions for Advanced Drilling

We offer positive feed tools in both fully automatic for higher cycle rates and manual for an entry level solution. We also offer hydraulic control air feed drills in standard pistol, self colleting pistol, pistol peck feed and compact angle for limited access applications.

Trained application specialists work with you to ensure the configured solution is optimized for your application needs.

For nutplate attachment applications we have our 10Q Nut Plate Drill configurable to meet the specific hole pattern with double wing, single wing and mickey mouse pressure feet. Add on options for lubrication, cycle, maintenance and life counting, error proofing and ergonomics ensure the solution meets the process needs.

Our most recent developed tools the A series are typically the starting point for a configured solution.

## Advanced Drilling

**Cleco A Series: Increase productivity and accuracy — decrease service and operating costs.**

The A Series is made up of two product families the compact A2 series for holes up to ½" / 12.7mm and the robust A1 series for holes up to 1" / 25.4mm.

Developed with similar architecture, both tools offer a wide range of speeds and feeds to optimize the drilling process with governed turbine and vane motor options that minimize speed drop for consistent hole quality and cycle time.

Tools can produce a drilled and 100% countersunk hole including chip fragmentation when drilling using proven Mitis™ technology.

Design features such as easy access feed gear and Mitis™, self-contained bearings, captive O rings, external grease ports and shear pin, non-impact retract clutch enable up to 500 hours or 100k cycles between preventative maintenance.



**Configured A Series tools provide an optimized solution for your needs.**

The A Series tools offer a wide range of configuration options to ensure you get the solution you need.

Standard fixturing options for twist lock / ¼" turn mounting with and without vacuum; concentric collet mounting for smaller holes in both right angle and in-line/pistol grip configuration; a template foot solution for lower fixturing costs for both horizontal and vertical operation. Additional add on options such as cutters, cutter lubrication, cycle counter for cutter and maintenance monitoring allow additional process improvement.



# Advanced Drilling

## A2 Series - Positive Feed - Automatic

Nominal Capacity 1/2in | 12.7mm in Al  
 Turbine 2.2hp | 1.6kW & Vane 1.4hp | 1kW  
 Thrust 400lb | 1800N  
 Base Weight 5lb | 2.3kg  
 Stroke Per Application



- Fully automatic drill cycle start, feed, retract, stop
- Drill and 100% countersink with chip fragmentation using proven Mitis™ technology
- Easy change for both feed rate and Mitis™ in less than 15 minutes
- External shear pin for gear head protection and easy change
- Up to 500 hours / 100000 cycle PM interval
- Grease ports, self contained bearings and captive O rings reduce service cost
- Thrust overload for countersinking or in event of tool overthrust when drilling e.g. from broker cutter
- Available in both governed turbine or vane motor to minimize speed drop when drilling
- Wide range of fixturing options and accessories
- Many configurable options available - please contact us for configuration assistance

MODEL	MOTOR	SPEED R/MIN	FEED RATE		SPINDLE ATTACHMENT	FIXTURING OPTIONS	ACCESSORIES
	CONFIGURATION		MM/REV	IN/REV			
A24T	RIGHT ANGLE TURBINE	450   550	.025	.001	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-18 200DA COLLET	•NOSE FOR TWIST LOCK BUSHING - STANDARD AND VACUUM •CONCENTRIC COLLET •TEMPLATE FOOT	•NOSE INDEXER •ON BOARD COOLANT •FLOOR PUMP COOLANT •ELECTRONIC CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) •CUTTERS •HANDLES FOR OPERATION AND HANDLING
		650   700	.05	.002			
		850   1000	.08	.003			
		1200   1800	.10	.004			
		2700   3400	.15	.006			
4000   4400	.18	.007					
5400	.20	.008					
A24V	RIGHT ANGLE VANE MOTOR	250   320	.025	.001	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-18 200DA COLLET	•NOSE FOR TWIST LOCK BUSHING - STANDARD AND VACUUM •CONCENTRIC COLLET •TEMPLATE FOOT	•NOSE INDEXER •ON BOARD COOLANT •FLOOR PUMP COOLANT •ELECTRONIC CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) •CUTTERS •HANDLES FOR OPERATION AND HANDLING
		380   400					
		480   550					
		600   650					
		700   800					
		1000   1150					
		1500   1700					
		2300   2600					
		2900   3300					
		3700   3900					
4200   4500							
5200							
A26T	IN LINE TURBINE	450   550	.025	.001	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-18 200DA COLLET	•NOSE FOR TWIST LOCK BUSHING - STANDARD AND VACUUM •CONCENTRIC COLLET •TEMPLATE FOOT	•NOSE INDEXER •ON BOARD COOLANT •FLOOR PUMP COOLANT •ELECTRONIC CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) •CUTTERS •HANDLES FOR OPERATION AND HANDLING
		650   700	.05	.002			
		850   1000	.08	.003			
		1200   1800	.10	.004			
		2700   3400	.15	.006			
4000   4400	.18	.007					
5400	.20	.008					
A26V	IN LINE VANE MOTOR	250   320	.025	.001	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-18 200DA COLLET	•NOSE FOR TWIST LOCK BUSHING - STANDARD AND VACUUM •CONCENTRIC COLLET •TEMPLATE FOOT	•NOSE INDEXER •ON BOARD COOLANT •FLOOR PUMP COOLANT •ELECTRONIC CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) •CUTTERS •HANDLES FOR OPERATION AND HANDLING
		380   400					
		430   480					
		550   600					
		650   700					
		800   1000					
		1150   1500					
		1700   2300					
		2600   2900					
		3300   3700					
		3900   4200					
		4500   5200					

## A1 Series - Positive Feed - Automatic

Nominal Capacity 1in | 25.4mm in AI  
 Turbine 2.4hp | 1.8kW & Vane 1.7hp | 1.3kW  
 Thrust 500lb | 2200N  
 Base Weight 7lb | 3.2kg  
 Stroke Per Application



- Fully automatic drill cycle start, feed, retract, stop
- Drill and 100% countersink with chip fragmentation using proven Mitis™ technology
- Easy change for both feed rate and Mitis™ in less than 15 minutes
- External shear pin for gear head protection and easy change
- Up to 500 hours / 100000 cycle PM interval
- Grease ports, self contained bearings and captive O rings reduce service cost
- Thrust overload for countersinking or in event of tool overthrust when drilling e.g. from broken cutter
- Available in both governed turbine or vane motor to minimize speed drop when drilling
- Wide range of fixturing options and accessories
- Many customizable options available - please contact us for configuration assistance

MODEL	MOTOR	SPEED	FEED RATE		SPINDLE	FIXTURING	ACCESSORIES		
	CONFIGURATION	R/MIN	MM/REV	IN/REV	ATTACHMENT	OPTIONS			
A14T	RIGHT ANGLE TURBINE	430   630	.025	.001	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-24 200DA COLLET	•NOSE FOR TWIST LOCK BUSHING - STANDARD AND VACUUM •DEPTH SENSING TWIST LOCK •CONCENTRIC COLLET •TEMPLATE FOOT	•NOSE INDEXER •ON BOARD COOLANT •FLOOR PUMP COOLANT •ELECTRONIC CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) •CUTTERS •HANDLES FOR OPERATION AND HANDLING		
		800   1000	.05	.002					
		1800	.08	.003					
		2600	.10	.004					
		3250	.15	.006					
	.18	.007							
	.20	.008							
A14V	RIGHT ANGLE VANE MOTOR	190   250	.025	.001	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-24 200DA COLLET	•NOSE FOR TWIST LOCK BUSHING - STANDARD AND VACUUM •DEPTH SENSING TWIST LOCK •CONCENTRIC COLLET •TEMPLATE FOOT	•NOSE INDEXER •ON BOARD COOLANT •FLOOR PUMP COOLANT •ELECTRONIC CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) •CUTTERS •HANDLES FOR OPERATION AND HANDLING		
		320   350						.05	.002
		410   460						.08	.003
		510   600						.10	.004
		670   760						.15	.006
		850   950						.18	.007
		1450						.20	.008
		1700							
		1900							
		2100							
		2500							
2800									
3100									
A16T	IN LINE TURBINE	430   630	.025	.001	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-24 200DA COLLET	•NOSE FOR TWIST LOCK BUSHING - STANDARD AND VACUUM •DEPTH SENSING TWIST LOCK •CONCENTRIC COLLET •TEMPLATE FOOT	•NOSE INDEXER •ON BOARD COOLANT •FLOOR PUMP COOLANT •ELECTRONIC CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) •CUTTERS •HANDLES FOR OPERATION AND HANDLING		
		800   1000						.05	.002
		1800						.08	.003
		2600						.10	.004
		3250						.15	.006
	.18	.007							
	.20	.008							
A16V	IN LINE VANE MOTOR	190   250	.025	.001	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-24 200DA COLLET	•NOSE FOR TWIST LOCK BUSHING - STANDARD AND VACUUM •DEPTH SENSING TWIST LOCK •CONCENTRIC COLLET •TEMPLATE FOOT	•NOSE INDEXER •ON BOARD COOLANT •FLOOR PUMP COOLANT •ELECTRONIC CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) •CUTTERS •HANDLES FOR OPERATION AND HANDLING		
		320   350						.05	.002
		410   460						.08	.003
		510   600						.10	.004
		670   760						.15	.006
		850   950						.18	.007
		1450						.20	.008
		1700							
		1900   100							
		2500							
		2800							
3100									

# Advanced Drilling

## 9X2/230Q Series - Positive Feed - Automatic

Nominal Capacity 9X2 1/2" | 12.7mm in Al & 230Q 1 3/8" | 25mm in Al  
 Power 9x2 1.0hp | 0.75kW, Boosted 1.3hp | 1.0kW & 230Q 2.1hp | 1.6kW  
 Thrust 9x2 360lb | 1600N & 230Q 1800lb | 8000N  
 Base Weight 9x2 4.2lb | 2.1kg & 230Q 15.7lb | 7.1kg  
 Stroke Per Application



- Fully automatic drill cycle start, feed, retract, stop
- 230Q has external shear pin for gear head protection and easy change
- 230Q, 942 and 962 have thrust overload for countersinking or in event of tool overthrust when drilling e.g. from broken cutter, 932 and 952 are drill only
- Wide range of fixturing options and accessories
- Many configurable options available - please contact us for configuration assistance

MODEL	MOTOR	SPEED	FEED RATE		SPINDLE	FIXTURING	ACCESSORIES
	CONFIGURATION	R/MIN	MM/REV	IN/REV	ATTACHMENT	OPTIONS	
20932/932QR - BOOSTED	RIGHT ANGLE	450   800 1300   1600 2000   3200	0.015 0.03 0.05 0.07 0.1	0.0005 0.001 0.002 0.003 0.004	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-18 200DA COLLET	•NOSE FOR TWIST LOCK BUSHING WITH AND WITHOUT VACUUM •CONCENTRIC COLLET	•NOSE INDEXER •ON BOARD COOLANT •CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) •MITIS CHIP FRAGMENTATION (INTERNAL) •HANDLE •CUTTERS
20932/932QR - STD	RIGHT ANGLE	400   750 1100   1400 1700   2700 4500	0.015 0.03 0.05 0.07 0.1	0.0005 0.001 0.002 0.003 0.004	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-18 200DA COLLET	•NOSE FOR TWIST LOCK BUSHING WITH AND WITHOUT VACUUM •CONCENTRIC COLLET	•NOSE INDEXER •ON BOARD COOLANT •CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) •MITIS CHIP FRAGMENTATION (INTERNAL) •HANDLE •CUTTERS
20942/942QR - BOOSTED	RIGHT ANGLE	450   800 1300   1600 2000   3200	0.015 0.03 0.05 0.07 0.1	0.0005 0.001 0.002 0.003 0.004	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-18 200DA COLLET	•NOSE FOR TWIST LOCK BUSHING WITH AND WITHOUT VACUUM •DEPTH SENSING TWIST LOCK •CONCENTRIC COLLET	•NOSE INDEXER •ON BOARD COOLANT •CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) •MITIS CHIP FRAGMENTATION (INTERNAL) •HANDLE •CUTTERS
20942/942QR - STD	RIGHT ANGLE	400   750 1100   1400 1700   2700 4500	0.015 0.03 0.05 0.07 0.1	0.0005 0.001 0.002 0.003 0.004	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-18 200DA COLLET	•NOSE FOR TWIST LOCK BUSHING WITH AND WITHOUT VACUUM •DEPTH SENSING TWIST LOCK •CONCENTRIC COLLET	•NOSE INDEXER •ON BOARD COOLANT •CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) •MITIS CHIP FRAGMENTATION (INTERNAL) •HANDLE •CUTTERS
20952/952QB - BOOSTED	INLINE	450   800 1300   1600 2000   3200	0.015 0.03 0.05 0.07 0.1	0.0005 0.001 0.002 0.003 0.004	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-18 200DA COLLET	•NOSE FOR TWIST LOCK BUSHING WITH AND WITHOUT VACUUM •DEPTH SENSING TWIST LOCK •CONCENTRIC COLLET	•NOSE INDEXER •ON BOARD COOLANT •CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) •MITIS CHIP FRAGMENTATION (INTERNAL) •HANDLE •CUTTERS
20952/952QB - STD	INLINE	400   750 1100   1400 1700   2700 4500	0.015 0.03 0.05 0.07 0.1	0.0005 0.001 0.002 0.003 0.004	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-18 200DA COLLET	•NOSE FOR TWIST LOCK BUSHING WITH AND WITHOUT VACUUM •DEPTH SENSING TWIST LOCK •CONCENTRIC COLLET	•NOSE INDEXER •ON BOARD COOLANT •CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) •MITIS CHIP FRAGMENTATION (INTERNAL) •HANDLE •CUTTERS

MODEL	MOTOR	SPEED	FEED RATE		SPINDLE	FIXTURING	ACCESSORIES
	CONFIGURATION	R/MIN	MM/REV	IN/REV	ATTACHMENT	OPTIONS	
20962/962QB - BOOSTED	INLINE	450   800 1300   1600 2000   3200	0.015 0.03 0.05 0.07 0.1	0.0005 0.001 0.002 0.003 0.004	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-18 200DA COLLET	*NOSE FOR TWIST LOCK BUSHING WITH AND WITHOUT VACUUM *DEPTH SENSING TWIST LOCK *CONCENTRIC COLLET	*NOSE INDEXER *ON BOARD COOLANT *CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) *MITIS CHIP FRAGMENTATION (INTERNAL) *HANDLE *CUTTERS
20962/962QB - STD	INLINE	400   750 1100   1400 1700   2700 4500	0.015 0.03 0.05 0.07 0.1	0.0005 0.001 0.002 0.003 0.004	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-18 200DA COLLET	*NOSE FOR TWIST LOCK BUSHING WITH AND WITHOUT VACUUM *DEPTH SENSING TWIST LOCK *CONCENTRIC COLLET	*NOSE INDEXER *ON BOARD COOLANT *CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) *MITIS CHIP FRAGMENTATION (INTERNAL) *HANDLE *CUTTERS
230QB	INLINE	75   97 120   150 188   240 307   310 390   480 585   680 825   960 1155   1500	0.013 0.025 0.051 0.076 0.114 0.152 0.203 0.305	0.0005 0.001 0.002 0.003 0.0045 0.006 0.008 0.012	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-18 200DA COLLET	*NOSE FOR TWIST LOCK BUSHING WITH AND WITHOUT VACUUM *DEPTH DWELL ATTACHMENT FOR COUNTERSINKING	*NOSE INDEXER *ON BOARD COOLANT *CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) *MITIS CHIP FRAGMENTATION (INTERNAL) *HANDLE *CUTTERS
230QBV VARIABLE SPEED	INLINE	VARIABLE SPEED 75-187 150-375 330-780 600-1500	0.013 0.025 0.051 0.076 0.114 0.152 0.203 0.305	0.0005 0.001 0.002 0.003 0.0045 0.006 0.008 0.012	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-18 200DA COLLET	*NOSE FOR TWIST LOCK BUSHING WITH AND WITHOUT VACUUM *DEPTH DWELL ATTACHMENT FOR COUNTERSINKING	*NOSE INDEXER *ON BOARD COOLANT *CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) *MITIS CHIP FRAGMENTATION (INTERNAL) *HANDLE *CUTTERS
230QR	RIGHT ANGLE	50   65 80   100 125   160 205   260 320   390 440   550 640   770 1000	0.013 0.025 0.051 0.076 0.114 0.152 0.203 0.305	0.0005 0.001 0.002 0.003 0.0045 0.006 0.008 0.012	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-18 200DA COLLET	*NOSE FOR TWIST LOCK BUSHING WITH AND WITHOUT VACUUM *DEPTH DWELL ATTACHMENT FOR COUNTERSINKING	*NOSE INDEXER *ON BOARD COOLANT *CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) *MITIS CHIP FRAGMENTATION (INTERNAL) *HANDLE *CUTTERS
230QRV VARIABLE SPEED	RIGHT ANGLE	VARIABLE SPEED 50-125 100-250 210-520 420-1000	0.013 0.025 0.051 0.076 0.114 0.152 0.203 0.305	0.0005 0.001 0.002 0.003 0.0045 0.006 0.008 0.012	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-18 200DA COLLET	*NOSE FOR TWIST LOCK BUSHING WITH AND WITHOUT VACUUM *DEPTH DWELL ATTACHMENT FOR COUNTERSINKING	*NOSE INDEXER *ON BOARD COOLANT *CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) *MITIS CHIP FRAGMENTATION (INTERNAL) *HANDLE *CUTTERS

# Advanced Drilling

## 15QRHD/158QR Series - Positive Feed - Manual

Nominal Capacity 15QRHD 5/8" | 16mm in Al & 158QR 1" | 25mm in Al  
 Power 15 Series 1hp | 0.75kW & 158 Series 1.6hp | 1/2kW  
 Thrust 158Q 1000lb | 4400N & 158 & 15QR 500lb | 2200N  
 Base Weight 15 Series 5lb | 2.3kg & 158 Series 9.9lb | 4.5kg  
 Stroke Per Application



- Separate manual control for air motor and feed - less affect from air supply variation
- Feed is engaged by pressing down on feed engagement lever/button
- Automatic retract stop with protective rolling impulse clutch prevents jamming of spindle at end of retract.
- Air motor is manually started at beginning and shut off at completion of drill cycle.
- 15QRHD Externally replaceable shear pin provides gear protection if chips pack or cutter binds.
- Many customizable options available - please contact us for configuration assistance

MODEL	MOTOR	SPEED	FEED RATE		SPINDLE	FIXTURING	ACCESSORIES
	CONFIGURATION		R/MIN	MM/REV	IN/REV	ATTACHMENT	
158-15QRHD	RIGHT ANGLE	110   140	.013 .025 .051 .076 .152	.0005 .001 .002 .003 .006	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-18 200DA COLLET	•NOSE FOR TWIST LOCK BUSHING WITH AND WITHOUT VACUUM •EXTERNAL MITIS NOSE WITH AND WITHOUT VACUUM •CONCENTRIC COLLET WITH AND WITHOUT VACUUM	•NOSE INDEXER •ON BOARD COOLANT •CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) •MITIS CHIP FRAGMENTATION •MODULE •HANDLES •CUTTERS
		230   290					
		490   600					
		1000					
		1200					
158-15QRH-DV - VARIABLE SPEED	RIGHT ANGLE	70-150	.013 .025 .051 .076 .152	.0005 .001 .002 .003 .006	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-18 200DA COLLET	•NOSE FOR TWIST LOCK BUSHING WITH AND WITHOUT VACUUM •EXTERNAL MITIS NOSE WITH AND WITHOUT VACUUM •CONCENTRIC COLLET WITH AND WITHOUT VACUUM	•NOSE INDEXER •ON BOARD COOLANT •CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) •MITIS CHIP FRAGMENTATION •MODULE •HANDLES •CUTTERS
		140-290					
		250-600					
		490-1200					
		2000-3000					
158QR	RIGHT ANGLE	47   56	.013 .025 .051 .089 .140 .191	.0005 .001 .002 .0035 .0055 .0075	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-18 200DA COLLET	•NOSE FOR TWIST LOCK BUSHING WITH AND WITHOUT VACUUM •EXTERNAL MITIS NOSE WITH AND WITHOUT VACUUM	•NOSE INDEXER •ON BOARD COOLANT •CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) •MITIS CHIP FRAGMENTATION •MODULE •HANDLES •CUTTERS
		70   94					
		110   120					
		140   185					
		194   230					
		288   380					
		388   460					
485   570							
760   950							
158QRV - VARIABLE SPEED	RIGHT ANGLE	47-120	.013 .025 .051 .089 .140 .191	.0005 .001 .002 .0035 .0055 .0075	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-18 200DA COLLET	•NOSE FOR TWIST LOCK BUSHING WITH AND WITHOUT VACUUM •EXTERNAL MITIS NOSE WITH AND WITHOUT VACUUM	•NOSE INDEXER •ON BOARD COOLANT •CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) •MITIS CHIP FRAGMENTATION •MODULE •HANDLES •CUTTERS
		92-230					
		194-485					
		380-950					
15QRHD	RIGHT ANGLE	165   265	.013 .025 .051 .076 .152	.0005 .001 .002 .003 .006	SPECIALS ON REQUEST 1/4"-28 5/16"-24 3/8"-24 9/16"-18 200DA COLLET	•NOSE FOR TWIST LOCK BUSHING WITH AND WITHOUT VACUUM •EXTERNAL MITIS NOSE WITH AND WITHOUT VACUUM •CONCENTRIC COLLET WITH AND WITHOUT VACUUM	•NOSE INDEXER •ON BOARD COOLANT •CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) •MITIS CHIP FRAGMENTATION •MODULE •HANDLES •CUTTERS
		335   465					
		660   1000					
		1650					

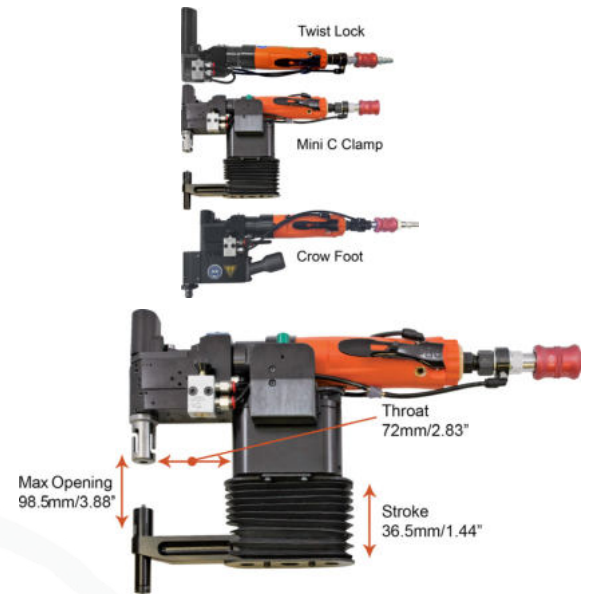
## 20802 - Positive Feed - Manual

Power 0.9hp | 0.7kW

Base Weight 6.6lb | 3kg

Stroke Std 1 / 25.4 - Other strokes on request

- Extremely compact for difficult access applications such as ribs and spars
- Modular design available in standard Twist lock, Mini C Clamp and Mini C Clamp Crowfoot
- For Mini C Clamp
  - Simple and easy to fixture and operate
  - Fixturing can be eliminated
  - Expandable cover for safety
  - Safety interlock to maintain clamp while running
  - Max clamp force 200lbs/900N



MODEL	MOTOR	SPEED		FEED RATE		FIXTURING	ACCESSORIES
	CONFIGURATION	R/MIN	MM/REV	IN/REV	OPTIONS		
20802MCC	RIGHT	380   560	.013	.005	•LOCATE ON PREHOLE IN COMPONENT •PILOT ON CUTTER •LOCATING PIN ON CLAMP •LOCATE ON OUTSIDE •DIAMETER OF BUSHING	•VACUUM •ONBOARD LUBRICATOR •FLOOR PUMP LUBRICATOR •ELECTRONIC CYCLE COUNTER •CUTTERS	
	ANGLE	950   1500	.025	.001			
	MINI C	1800	.051	.002			
	CLAMP	2200	.076	.003			
		3800	.152	.006			
20802MCCF	RIGHT	380   560	.013	.005	•LOCATE ON PREHOLE IN COMPONENT •PILOT ON CUTTER •LOCATING PIN ON CLAMP •LOCATE ON OUTSIDE •DIAMETER OF BUSHING	•VACUUM •ONBOARD LUBRICATOR •FLOOR PUMP LUBRICATOR •ELECTRONIC CYCLE COUNTER •CUTTERS	
	ANGLE	950   1500	.025	.001			
	MINI C	1800	.051	.002			
	CLAMP	2200	.076	.003			
		3800	.152	.006			
20802TL	RIGHT	380   560	.013	.005	•TWIST LOCK	•VACUUM •ONBOARD LUBRICATOR •FLOOR PUMP LUBRICATOR •ELECTRONIC CYCLE COUNTER •CUTTERS	
	ANGLE	950   1500	.025	.001			
	TWIST LOCK	1800	.051	.002			
		2200	.076	.003			
		3800	.152	.006			

Custom versions available. Contact us for application assistance.

## Advanced Drilling

### CD/120Q/21500 Series - Portable Controlled Feed - Pistol Drill

Power CD-V & CD-4 0.9hp | 0.67kW & CD-5 1.3hp | 1.0kW & 21500 1.2hp | 0.95kW

Thrust CD1 90lb | 400N & CD-2 120lb | 535N & 21500 55lb | 245N

Base Weight 4lb | 1.8kg



- Compact portable airfeed drill with hydraulic feed control
- Reduced operator effort for drilling/countersinking
- Lightweight and comfortable grip
- Range of speeds, stroke and power
- Range of location/fixture options
- Vacuum option to reduce clean up
- Many customizable options available - please contact us for configuration assistance

MODEL	MOTOR	SPEED	FIXTURING	ACCESSORIES	STROKE
	CONFIGURATION	R/MIN	OPTIONS		
21500/21502/120QP	PISTOL GRIP	150-550	<ul style="list-style-type: none"> <li>• TEMPLATES BOSS LOCATION</li> <li>• TEMPLATES BOSS LOCATION WITH VACUUM</li> <li>• VACUUM CLAMPING</li> </ul>	<ul style="list-style-type: none"> <li>• ON BOARD COOLANT SUPPLY</li> <li>• CUTTERS</li> </ul>	1.000 IN   25.4 MM
CD14	PISTOL GRIP	500   800 1300   1900 3200   5200 6200   20000	<ul style="list-style-type: none"> <li>• VACUUM AND CUTTER GUIDE OPTIONS. BUSHING TIP NOT INCLUDED.</li> <li>• TEMPLATES BOSS</li> <li>• 21K BUSHING</li> <li>• 23K BUSHING</li> <li>• 24K BUSHING</li> <li>• MINI</li> </ul>	<ul style="list-style-type: none"> <li>• ON BOARD COOLANT SUPPLY</li> <li>• CUTTERS</li> </ul>	1.000 IN   25.4 MM
CD15	PISTOL GRIP	1000   1700 4500   18000	<ul style="list-style-type: none"> <li>• VACUUM AND CUTTER GUIDE OPTIONS. BUSHING TIP NOT INCLUDED.</li> <li>• TEMPLATES BOSS</li> <li>• 21K BUSHING</li> <li>• 23K BUSHING</li> <li>• 24K BUSHING</li> <li>• MINI</li> </ul>	<ul style="list-style-type: none"> <li>• ON BOARD COOLANT SUPPLY</li> <li>• CUTTERS</li> </ul>	1.000 IN   25.4 MM
CD1V	PISTOL GRIP	VARIABLE SPEED 150-550 400-1200 700-2400	<ul style="list-style-type: none"> <li>• VACUUM AND CUTTER GUIDE OPTIONS. BUSHING TIP NOT INCLUDED.</li> <li>• TEMPLATES BOSS</li> <li>• 21K BUSHING</li> <li>• 23K BUSHING</li> <li>• 24K BUSHING</li> <li>• MINI</li> </ul>	<ul style="list-style-type: none"> <li>• ON BOARD COOLANT SUPPLY</li> <li>• CUTTERS</li> </ul>	1.000 IN   25.4 MM
CD24	PISTOL GRIP	500   800 1300   1900 3200   5200 6200   20000	<ul style="list-style-type: none"> <li>• VACUUM AND CUTTER GUIDE OPTIONS. BUSHING TIP NOT INCLUDED.</li> <li>• TEMPLATES BOSS</li> <li>• 21K BUSHING</li> <li>• 23K BUSHING</li> <li>• 24K BUSHING</li> <li>• MINI</li> </ul>	<ul style="list-style-type: none"> <li>• ON BOARD COOLANT SUPPLY</li> <li>• CUTTERS</li> </ul>	2.000 IN   50.8 MM
CD25	PISTOL GRIP	1000   1700 4500   18000	<ul style="list-style-type: none"> <li>• VACUUM AND CUTTER GUIDE OPTIONS. BUSHING TIP NOT INCLUDED.</li> <li>• TEMPLATES BOSS</li> <li>• 21K BUSHING</li> <li>• 23K BUSHING</li> <li>• 24K BUSHING</li> <li>• MINI</li> </ul>	<ul style="list-style-type: none"> <li>• ON BOARD COOLANT SUPPLY</li> <li>• CUTTERS</li> </ul>	2.000 IN   50.8 MM
CD2V	PISTOL GRIP	VARIABLE SPEED 150-550 400-1200 700-2400	<ul style="list-style-type: none"> <li>• VACUUM AND CUTTER GUIDE OPTIONS. BUSHING TIP NOT INCLUDED.</li> <li>• TEMPLATES BOSS</li> <li>• 21K BUSHING</li> <li>• 23K BUSHING</li> <li>• 24K BUSHING</li> <li>• MINI</li> </ul>	<ul style="list-style-type: none"> <li>• ON BOARD COOLANT SUPPLY</li> <li>• CUTTERS</li> </ul>	2.000 IN   50.8 MM

## PA/PB Series - Portable Controlled Feed - Angle Drill

Power 0.9hp | 0.67kW

Thrust PAX 120lb | 540N & PBX 160lb | 710N

Stroke 1.25in | 31.8mm



- PA for Drilling small holes in aluminum, PB for larger holes in aluminium and holes in Ti and steel
- Compact air feed with hydraulic feed control
- Access very confined spaces
- Modular design
- Variety of angle head, speeds and yoke sizes
- Thrust actuated by button/toggle or combine with drill lever (taper lock only)
- Drill point lubricator can improve hole quality and extend cutter life
- Many customizable options available - please contact us for configuration assistance

MODEL	MOTOR	SPEED	SPINDLE	FIXTURING	ACCESSORIES	WEIGHT
	CONFIGURATION	R/MIN	ATTACHMENT	OPTIONS		LB
PA2-5XX	ANGLE DRILL	300   500 750   1000 1300   2100 3500   4500	1/4"-28 HEAVY DUTY ANGLE HEAD 5/16"-24 HEAVY DUTY ANGLE HEAD 3/8"-24 HEAVY DUTY ANGLE HEAD	•SQUEEZE YOKE	•RISER BLOCK •ON BOARD COOLANT SUPPLY •CUTTERS	7.5
PA2-6XX	ANGLE DRILL	450   750 1100   1400 1850   3000 5000   6000	1/4"-28 MINIANGLE HEAD 5/16"-24 MINI ANGLE HEAD	•SQUEEZE YOKE	•RISER BLOCK •ON BOARD COOLANT SUPPLY •CUTTERS	7.5
PA2-8XX	ANGLE DRILL	300   500 750   1000 1300   2100 3500   4500	300DA COLLET SPINDLE	•SQUEEZE YOKE	•RISER BLOCK •ON BOARD COOLANT SUPPLY •CUTTERS	7.5
PA3-5XX	ANGLE DRILL	300   500 750   1000 1300   2100 3500   4500	1/4"-28 HEAVY DUTY ANGLE HEAD 5/16"-24 HEAVY DUTY ANGLE HEAD 3/8"-24 HEAVY DUTY ANGLE HEAD	•PUSH AWAY	•RISER BLOCK •ON BOARD COOLANT SUPPLY •CUTTERS	7.1
PA3-6XX	ANGLE DRILL	450   750 1100   1400 1850   3000 5000   6000	1/4"-28 MINIANGLE HEAD 5/16"-24 MINI ANGLE HEAD	•PUSH AWAY	•RISER BLOCK •ON BOARD COOLANT SUPPLY •CUTTERS	7.1
PA3-8XX	ANGLE DRILL	300   500 750   1000 1300   2100 3500   4500	300DA COLLET SPINDLE	•PUSH AWAY	•RISER BLOCK •ON BOARD COOLANT SUPPLY •CUTTERS	7.1
PA5-5XX	ANGLE DRILL	300   500 750   1000 1300   2100 3500   4500	1/4"-28 HEAVY DUTY ANGLE HEAD 5/16"-24 HEAVY DUTY ANGLE HEAD 3/8"-24 HEAVY DUTY ANGLE HEAD	•TAPER LOCK •SHORT YOKE	•ON BOARD COOLANT SUPPLY •CUTTERS	5.7
PA5-6XX	ANGLE DRILL	450   750 1100   1400 1850   3000 5000   6000	1/4"-28 MINIANGLE HEAD 5/16"-24 MINI ANGLE HEAD	•TAPER LOCK •SHORT YOKE	•ON BOARD COOLANT SUPPLY •CUTTERS	5.7
PA5-8XX	ANGLE DRILL	300   500 750   1000 1300   2100 3500   4500	300DA COLLET SPINDLE	•TAPER LOCK •SHORT YOKE	•ON BOARD COOLANT SUPPLY •CUTTERS	5.7
PB2-5XX	ANGLE DRILL	300   500 750   1000 1300   2100 3500   4500	1/4"-28 HEAVY DUTY ANGLE HEAD 5/16"-24 HEAVY DUTY ANGLE HEAD 3/8"-24 HEAVY DUTY ANGLE HEAD	•SQUEEZE YOKE	•RISER BLOCK •ON BOARD COOLANT SUPPLY •CUTTERS	8.8



## Advanced Drilling

MODEL	MOTOR	SPEED	SPINDLE	FIXTURING	ACCESSORIES	WEIGHT
	CONFIGURATION	R/MIN	ATTACHMENT	OPTIONS		LB
PB2-6XX	ANGLE DRILL	450   750 1100   1400 1850   3000 5000   6000	1/4"-28 MINIANGLE HEAD 5/16"-24 MINI ANGLE HEAD	•SQUEEZE YOKE	•RISER BLOCK •ON BOARD COOLANT SUPPLY •CUTTERS	8.8
PB2-8XX	ANGLE DRILL	300   500 750   1000 1300   2100 3500   4500	300DA COLLET SPINDLE	•SQUEEZE YOKE	•RISER BLOCK •ON BOARD COOLANT SUPPLY •CUTTERS	8.8
PB3-5XX	ANGLE DRILL	300   500 750   1000 1300   2100 3500   4500	1/4"-28 HEAVY DUTY ANGLE HEAD 5/16"-24 HEAVY DUTY ANGLE HEAD 3/8"-24 HEAVY DUTY ANGLE HEAD	•PUSH AWAY	•RISER BLOCK •ON BOARD COOLANT SUPPLY •CUTTERS	8.4
PB3-6XX	ANGLE DRILL	450   750 1100   1400 1850   3000 5000   6000	1/4"-28 MINIANGLE HEAD 5/16"-24 MINI ANGLE HEAD	•PUSH AWAY	•RISER BLOCK •ON BOARD COOLANT SUPPLY •CUTTERS	8.4
PB3-8XX	ANGLE DRILL	300   500 750   1000 1300   2100 3500   4500	300DA COLLET SPINDLE	•PUSH AWAY	•RISER BLOCK •ON BOARD COOLANT SUPPLY •CUTTERS	8.4
PB5-5XX	ANGLE DRILL	300   500 750   1000 1300   2100 3500   4500	1/4"-28 MINIANGLE HEAD 5/16"-24 MINI ANGLE HEAD	•TAPER LOCK •SHORT YOKE	•ON BOARD COOLANT SUPPLY •CUTTERS	7.1
PB5-6XX	ANGLE DRILL	450   750 1100   1400 1850   3000 5000   6000	1/4"-28 MINIANGLE HEAD 5/16"-24 MINI ANGLE HEAD	•TAPER LOCK •SHORT YOKE	•ON BOARD COOLANT SUPPLY •CUTTERS	7.1
PB5-8XX	ANGLE DRILL	300   500 750   1000 1300   2100 3500   4500	300DA COLLET SPINDLE	•TAPER LOCK •SHORT YOKE	•ON BOARD COOLANT SUPPLY •CUTTERS	7.1

## 10Q Series - Portable Controlled Feed - Nut Plate Drill

Power 0.75hp | 0.56kW

Thrust 180lb | 800N

Weight 10QNPD 5.1lb | 2.3kg & 10QNPDM 7.3lb | 3.3kg

Stroke 0.6in | 15.2mm



- Twin spindle drill for Nut plate fasteners
- Large range of pressure feet to suit nut plate designs
- Capacity .1285" Drill/ .250" Countersink\*
- Minimum Countersink Depth Accuracy of +/- .001"
- Countersink Depth adjustable in .001" increments
- Variable spacing available from .3"/7.6mm to 1.0"/25.4mm
- M Mini Spindle Option for closer centers (0.219/5.6mm) min)
- Pressure foot options to suit Nut plate Centers
- Many customizable options available - please contact us for configuration assistance

MODEL	MOTOR	SPEED	FIXTURING	ACCESSORIES
	CONFIGURATION	R/MIN	OPTIONS	
10QNPD	PISTOL GRIP	600/6000	•DOUBLE WING •SINGLE WING •MICKEY MOUSE	•BOOSTER PUMP (STD THRUST X 2.5) •ON BOARD COOLANT •CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) •CUTTERS •VACUUM SHROUD
10QNPDM	PISTOL GRIP	6000	•DOUBLE WING •SINGLE WING •MICKEY MOUSE	•BOOSTER PUMP (STD THRUST X 2.5) •ON BOARD COOLANT •CYCLE COUNTER (SERVICE, MAINTENANCE AND CUTTER LIFE) •CUTTERS •VACUUM SHROUD

## Hand Drilling, Countersinking & Spotfacing

### 14CF Series - Pistol Drill Non-Reversible

0.4hp / 0.30kW

600-29000rpm



- Comfort grip with ergonomic finger and thumb guides to aid control
- Supplied with Jacobs® Keyed Chuck or Threaded Termination for Keyless Chuck/Collet
- Excellent for aerospace, metal fabrication, and wood working applications

MODEL	TERMINATION	SPEED	WEIGHT	LENGTH
		R/MIN	LB	IN
14CFS97-38	1/4" CHUCK	600	1.76	6.9
14CFS97-51	3/8" CHUCK	600	1.76	6.9
14CFS97-40	3/8" - 24 E	600	1.76	6.9
14CFS96-38	1/4" CHUCK	700	1.76	6.9
14CFS96-51	3/8" CHUCK	700	1.76	6.9
14CFS96-40	3/8" - 24 E	700	1.76	6.9
14CFS95-38	1/4" CHUCK	1000	1.76	6.9
14CFS95-51	3/8" CHUCK	1000	1.76	6.9
14CFS95-40	3/8" - 24 E	1000	1.76	6.9
14CFS94-38	1/4" CHUCK	2400	1.54	5.7
14CFS94-51	3/8" CHUCK	2400	1.54	5.7
14CFS94-40	3/8" - 24 E	2400	1.54	5.7
14CFS93-38	1/4" CHUCK	3200	1.54	5.7
14CFS93-51	3/8" CHUCK	3200	1.54	5.7
14CFS93-40	3/8" - 24 E	3200	1.54	5.7
14CFS92-38	1/4" CHUCK	3800	1.54	5.7
14CFS92-51	3/8" CHUCK	3800	1.54	5.7
14CFS92-40	3/8" - 24 E	3800	1.54	5.7
14CFS91-38	1/4" CHUCK	5200	1.54	5.7
14CFS91-51	3/8" CHUCK	5200	1.54	5.7
14CFS91-40	3/8" - 24 E	5200	1.54	5.7
14CFS90-38	1/4" CHUCK	29000	1.54	5.7
14CFS90-51	3/8" CHUCK	29000	1.54	5.7
14CFS90-40	3/8" - 24 E	29000	1.54	5.7

All tools performance rated @ 90psi / 620 kPa air pressure.

Air inlet size: 1/4in

Minimum Hose I.D.: 5/16in / 7.9mm

Drill Diameter Capacity Matches Chuck Size

## 14CS Series - Pistol Drill Non-Reversible

0.6hp / 0.45kW

500-20000rpm



- Comfort grip with ergonomic finger and thumb guides to aid control
- Supplied with Jacobs® Keyed Chuck or Threaded Termination for Keyless Chuck/Collet
- Excellent for aerospace, metal fabrication, and wood working applications

MODEL	TERMINATION	SPEED	WEIGHT	LENGTH
		R/MIN	LB	IN
14CSL97-40	3/8" - 24 E	500	2.87	8.1
14CSL97-51	3/8" CHUCK	500	2.87	8.1
14CSL95-40	3/8" - 24 E	1300	2.87	8.1
14CSL95-51	3/8" CHUCK	1300	2.87	8.1
14CSL92-38	1/4" CHUCK	3200	2.20	0.63
14CSL92-40	3/8" - 24 E	3200	2.20	0.63
14CSL91-38	1/4" CHUCK	5200	2.20	0.63
14CSL91-40	3/8" - 24 E	5200	2.20	0.63
14CSL98-38	1/4" CHUCK	6000	2.20	0.63
14CSL98-40	3/8" - 24 E	6000	2.20	0.63
14CSL90-38	1/4" CHUCK	20000	2.20	0.63
14CSL90-40	3/8" - 24 E	20000	2.20	0.63

All tools performance rated @ 90psi / 620 kPa air pressure.

Air inlet size: 1/4in

Minimum Hose I.D.: 5/16in / 7.9mm

Standard equipment: Jacobs geared chuck, chuck key

Drill diameter capacity matches chuck size.

## Hand Drilling, Countersinking & Spotfacing

### 14CN Series - Pistol Drill Non-Reversible

0.9hp / 0.67kW

500-20000rpm



- Comfort grip with ergonomic finger and thumb guides to aid control
- Supplied with Jacobs® Keyed Chuck or Threaded Termination for Keyless Chuck/Collet
- Excellent for aerospace, metal fabrication, and wood working applications
- 1/2" models equipped with dead handle

MODEL	TERMINATION	SPEED	WEIGHT	LENGTH
		R/MIN	LB	IN
14CNL97-51	3/8" CHUCK	500	3.53	9.1
14CNL97-40	3/8" - 24 E	500	3.53	9.1
14CNL97-53	1/2" CHUCK	500	3.53	9.1
14CNL95-51	3/8" CHUCK	1300	2.87	8.6
14CNL95-40	3/8" - 24 E	1300	2.87	8.6
14CNL92-38	1/4" CHUCK	3200	2.43	7.2
14CNL92-51	3/8" CHUCK	3200	2.43	7.2
14CNL92-53	1/2" CHUCK	3200	2.43	7.2
14CNL92-40	3/8" - 24 E	3200	2.43	7.2
14CNL91-51	3/8" CHUCK	5200	2.43	7.2
14CNL91-40	3/8" - 24 E	5200	2.43	7.2
14CNL98-38	1/4" CHUCK	6000	2.20	6.8
14CNL98-51	3/8" CHUCK	6000	2.20	6.8
14CNL98-53	1/2" CHUCK	6000	2.20	6.8
14CNL98-40	3/8" - 24 E	6000	2.20	6.8
14CNL90-38	1/4" CHUCK	20000	2.20	6.8
14CNL90-40	3/8" - 24 E	20000	2.20	6.8

All tools performance rated @ 90psi / 620 kPa air pressure.

Air inlet size: 1/4in

Minimum Hose I.D.: 5/16in / 7.9mm

Standard equipment: Jacobs geared chuck, chuck key

Drill diameter capacity matches chuck size.

## 14CH Series - Pistol Drill Non-Reversible

1.4hp / 1.0 kW

3200/6000rpm

High speed/power for Al or Composite Drilling



- Comfort grip with ergonomic finger and thumb guides to aid control
- Supplied with Jacobs® Keyed Chuck or Threaded Termination for Keyless Chuck/Collet
- Excellent for aerospace, metal fabrication, and wood working applications

MODEL	TERMINATION	SPEED	WEIGHT	LENGTH
		R/MIN	LB	IN
14CHL92-38	1/4" CHUCK	3200	2.65	6.5
14CHL92-40	3/8" - 24 E	3200	2.43	5.5
14CHL92-51	3/8" CHUCK	3200	2.87	7.1
14CHL92-53	1/2" CHUCK	3200	3.75	7.4
14CHL98-38	1/4" CHUCK	6000	2.65	6.5
14CHL98-40	3/8" - 24 E	6000	2.43	5.5
14CHL98-51	3/8" CHUCK	6000	2.87	7.1
14CHL98-53	1/2" CHUCK	6000	3.75	7.4

All tools performance rated @ 90psi / 620 kPa air pressure.

Air inlet size: 1/4in

Minimum Hose I.D.: 5/16in / 7.9mm

Standard equipment: Jacobs geared chuck, chuck key

Drill diameter capacity matches chuck size.

## Hand Drilling, Countersinking & Spotfacing

### MP14 Series - Pistol Drill Reversible/Non-Reversible

Industrial grade medium duty drills suitable for a wide range of production and MRO applications

MP1457/1463 1.0hp / 0.75 kW

MP1458 1.2hp / 0.90kW



- 2-step throttle for easy starting
- Built-in, no-clog mufflers for quiet operation
- Hardened and ground precision parts for extended service life

MODEL	TERMINATION	SPEED	WEIGHT	LENGTH
		R/MIN	LB	IN
MP1457-51	3/8" CHUCK	2600	1.98	7.5
MP1458-55	1/2" CHUCK	1200	2.20	9.0
MP1463-51	3/8" CHUCK	1800	2.43	6.8

All tools performance rated @ 90psi / 620 kPa air pressure.

Air inlet size: 1/4in

Minimum Hose I.D.: 5/16in / 7.9mm

Drill Diameter Capacity Matches Chuck Size

### 15DP Series - Pistol Drill Non-Reversible

1.0hp / 0.75kW

160-1400rpm

Low speed for Ti/Hard Metals



- Powerful motor
- Excellent for slow speed applications
- 1/2" models equipped with dead handle

MODEL	TERMINATION	SPEED	WEIGHT	LENGTH
		R/MIN	LB	IN
15DP-1.6B-53	1/2" CHUCK	160	6.0	9.8
15DP-4B-53	1/2" CHUCK	400	5.5	8.5
15DP-8B-53	1/2" CHUCK	800	5.5	8.5
15DP-14B-49	3/8" CHUCK	1400	4.41	8.3

All tools performance rated @ 90psi / 620 kPa air pressure.

Standard Equipment: Operating instructions and service manual Dead handles on all models except 15DP-14B 3-Jaw Chuck and Key

General: Air Inlet: 3/8" NPTF, Minimum Hose Size: 3/8", Spindle Thread: 1/2"-20,

Spindle Offset: Pistol Grip: 31/32"

Drill Diameter Capacity Matches Chuck Size

## 135DPV Series - Pistol Drill Non-Reversible Variable Speed

0.7hp / 0.5kW

150-2400rpm



### Governed Speed Setting/ Control

- Flexible speed setting for range of hole sizes
- Variable speed can replace multiple other tools
- Calibrated governed speed control

MODEL	TERMINATION	SPEED	GOVERNED RPM RANGE	WEIGHT	LENGTH
		R/MIN	R/MIN	LB	IN
135DPV-7B-43	1/2" CHUCK	600	150 – 550 RPM	3.53	9.6
135DPV-7B-50	1/2" CHUCK	600	150 – 550 RPM	3.53	9.6
135DPV-14B-50	1/2" CHUCK	1250	400 – 1,200 RPM	3.31	9.3
135DPV-14B-51	3/8" CHUCK	1250	400 – 1,200 RPM	3.31	9.3
135DPV-28B-51	3/8" CHUCK	2600	700 – 2,400 RPM	3.31	8.5

All tools performance rated @ 90psi / 620 kPa air pressure.

Standard Equipment: Operating instructions, service manual, 3-Jaw Chuck and Key-Jaw Chuck and Key

General: Air Inlet: 1/4in NPT, Minimum Hose Size: 1/4in / 6mm, Spindle Offset: 25/32in / 20mm

Drill Diameter Capacity Matches Chuck Size



# Hand Drilling, Countersinking & Spotfacing

## 15LF Series - Inline Drill

0.4hp / 0.30kW

600-28500rpm



- Supplied with Jacobs® Keyed Chuck or Threaded Termination for Keyless Chuck/Collet
- Rear Exhaust
- Lock off safety lever standard

MODEL	TERMINATION	SPEED	WEIGHT	LENGTH
		R/MIN	LB	IN
15LF087-38	1/4" CHUCK	600	1.98	8.6
15LF087-40	3/8" - 24 E	600	1.98	8.6
15LF086-38	1/4" CHUCK	750	1.32	8.0
15LF085-38	1/4" CHUCK	1000	1.32	8.0
15LF085-40	3/8" - 24 E	1000	1.32	8.0
15LF084-38	1/4" CHUCK	2400	1.32	8.0
15LF083-38	1/4" CHUCK	3300	1.32	8.0
15LF083-40	3/8" - 24 E	3300	1.32	8.0
15LF082-38	1/4" CHUCK	4000	1.32	8.0
15LF082-40	3/8" - 24 E	4000	1.32	7.3
15LF081-38	1/4" CHUCK	5300	1.32	8.0
15LF081-40	3/8" - 24 E	5300	1.32	8.0
15LF080-38	1/4" CHUCK	28500	0.9	0.63

All tools performance rated @ 90psi / 620 kPa air pressure.

Air inlet size: 1/4in

Minimum Hose I.D.: 1/4in / 6.4mm

Standard Equipment: Jacobs geared chuck, chuck key

Drill diameter capacity matches chuck size.

## 15L14 Series - Right Angle Drill

0.3hp / 0.22kW  
 1500-20000rpm  
 Up to 1/4" Capacity

- Chuck, Collet and 1/4"-28 internal output options
- Rear Exhaust
- Lock off Safety lever standard



MODEL	TERMINATION	SPEED	WEIGHT	LENGTH
		R/MIN	LB	IN
15L1487-32	1/4"-28 I	1500	1.2	8.0
15L1487-36	1/4" COLLET	1500	1.2	8.0
15L1487-38	1/4" CHUCK	1500	1.5	8.0
15L1488-36	1/4" COLLET	2400	1.6	8.7
15L1488-38	1/4" CHUCK	2400	1.5	8.0
15L1489-32	1/4"-28 I	3600	1.6	8.7
15L1489-36	1/4" COLLET	3600	1.6	8.7
15L1489-38	1/4" CHUCK	3600	1.5	8.0
15L1489-51	3/8" CHUCK	3600	1.5	8.0
15L1470-37	5/32" CHUCK	12000	1.2	6.9
15L1401-37	5/32" CHUCK	20000	1.0	6.2
15L1471-37	5/32" CHUCK	20000	1.2	6.9

All tools performance rated @ 90psi / 620 kPa air pressure.

Air inlet size: 1/4in

Minimum Hose I.D.: 1/4in / 6.4mm

Standard Equipment: Jacobs geared chuck, chuck key

Drill diameter capacity matches chuck size.

## Hand Drilling, Countersinking & Spotfacing

### 15LF Series - Right Angle Drill - Light Duty/ Small Head Height

0.4hp / 0.30kW

600-5300rpm

Ideal for Restricted Access Applications



- -62 1/4"-28 Internal thread standard
- Other terminations available:
  - 61 10-32 Internal Thread
  - 63 Threaded Collet
  - 64 5/16"-24 Internal Thread
- Other Angle Heads Available:
  - 5X Heavy Duty
  - 7X Compact Style
  - 4X 45 degree Angle Head
  - 9X 360 degree Angle Head
- Rear Exhaust
- Lock off safety lever standard

MODEL	TERMINATION	SPEED	WEIGHT	LENGTH
		R/MIN	LB	IN
15LF287-62	1/4"-28 I	600	1.9	11.8
15LF286-62	1/4"-28 I	750	1.9	11.8
15LF285-62	1/4"-28 I	1000	1.9	11.8
15LF284-62	1/4"-28 I	2400	1.8	11.1
15LF283-62	1/4"-28 I	3300	1.6	10.7
15LF282-62	1/4"-28 I	4000	1.6	10.7
15LF281-62	1/4"-28 I	5300	1.6	10.7

All tools performance rated @ 90psi / 620 kPa air pressure.

Air inlet size: 1/4in

Minimum Hose I.D.: 1/4in / 6.4mm

Standard Equipment: Jacobs geared chuck, chuck key

Drill diameter capacity matches chuck size.

## 15LF Series - Right Angle Drill - Heavy Duty Head

0.4hp / 0.30kW

420-3700rpm

Ideal for Restricted Access Applications



- -52 1/4"-28 Internal thread standard
- Other terminations Available:
  - 51 10-32 Internal Thread
  - 53 Threaded Collet
  - 54 5/16"-24 Internal Thread
  - 55 3/8"-24 Internal Thread
  - 59NC 3/8"-24 External Thread
- Other Angle Heads Available:
  - 6X Light Duty
  - 7X Compact Style
  - 4X 45 degree Angle Head
  - 9X 360 degree Angle Head
- Rear Exhaust
- Lock off safety lever standard

MODEL	TERMINATION	SPEED	WEIGHT	LENGTH
		R/MIN	LB	IN
15LF287-52	1/4"-28 I	420	2	12.0
15LF286-52	1/4"-28 I	525	2	12.0
15LF285-52	1/4"-28 I	700	2	12.0
15LF284-52	1/4"-28 I	1700	1.8	10.6
15LF283-52	1/4"-28 I	2300	1.7	11.0
15LF282-52	1/4"-28 I	2800	1.7	11.0
15LF281-52	1/4"-28 I	3700	1.7	11.0

All tools performance rated @ 90psi / 620 kPa air pressure.

Air inlet size: 1/4in

Minimum Hose I.D.: 1/4in / 6.4mm

Standard Equipment: Jacobs geared chuck, chuck key

Drill diameter capacity matches chuck size.

## Hand Drilling, Countersinking & Spotfacing

### 15LS Series - Right Angle Drill - Light Duty/ Small Head Height

0.6hp / 0.45kW

500-5400 rpm

Ideal for Restricted Access Applications



- -62 1/4"-28 Internal thread standard
- Other terminations available:
  - 61 10-32 Internal Thread
  - 63 Threaded Collet
  - 64 5/16"-24 Internal Thread
  - Quick Change Indexable Heads
- Other Angle Heads Available:
  - 5X Heavy Duty
  - 7X Compact Style
  - 4X 45 degree Angle Head
  - 9X 360 degree Angle Head
- Rear Exhaust
- Lock off safety lever standard

MODEL	TERMINATION	SPEED	WEIGHT	LENGTH
		R/MIN	LB	IN
15LS287-62	1/4"-28 I	500	1.9	12.7
15LS286-62	1/4"-28 I	840	1.9	12.7
15LS285-62	1/4"-28 I	1360	1.9	12.7
15LS284-62	1/4"-28 I	1660	1.9	12.4
15LS283-62	1/4"-28 I	2010	2.3	11.5
15LS282-62	1/4"-28 I	3370	2.3	11.5
15LS281-62	1/4"-28 I	5430	2.3	11.5

All tools performance rated @ 90psi / 620 kPa air pressure.

Air inlet size: 1/4in

Standard Equipment: 600 Series Mini Angle Head with 1/4"-28 internal thread

## 15LS Series - Right Angle Drill - Heavy Duty Head

0.6hp / 0.45kW

350-3800 rpm

Ideal for Restricted Access Applications



- -52 1/4"-28 Internal thread standard
- Other terminations Available:
  - 51 10-32 Internal Thread
  - 53 Threaded Collet
  - 54 5/16"-24 Internal Thread
  - 55 3/8"-24 Internal Thread
  - 59NC 3/8"-24 External Thread
  - Quick Change Indexable Heads
- Other Angle Heads Available:
  - 6X Light Duty
  - 7X Compact Style
  - 4X 45 degree Angle Head
  - 9X 360 degree Angle Head
- Rear Exhaust
- Lock off safety lever standard

MODEL	TERMINATION	SPEED	WEIGHT	LENGTH
		R/MIN	LB	IN
15LS287-52	1/4"-28 I	350	2.87	12.3
15LS286-52	1/4"-28 I	590	2.87	12.3
15LS285-52	1/4"-28 I	950	2.87	12.3
15LS283-52	1/4"-28 I	1410	2.43	11.0
15LS282-52	1/4"-28 I	2360	2.43	11.0
15LS281-52	1/4"-28 I	3800	2.43	11.0

All tools performance rated @ 90psi / 620 kPa air pressure.

Air inlet size: 1/4in

Standard Equipment: 500 Series Heavy Duty Angle Head with 1/4"-28

## Hand Drilling, Countersinking & Spotfacing

### 15LN Series - Right Angle Drill - Light Duty/ Small Head Height

0.9hp / 0.67kW

320-5600 rpm

Ideal for Restricted Access Applications



- -62 1/4"-28 Internal thread standard
- Other terminations available:
  - 61 10-32 Internal Thread
  - 63 Threaded Collet
  - 64 5/16"-24 Internal Thread
- Other Angle Heads Available:
  - 5X Heavy Duty
  - 7X Compact Style
  - 4X 45 degree Angle Head
  - 9X 360 degree Angle Head
- Rear Exhaust
- Lock off safety lever standard

MODEL	TERMINATION	SPEED	WEIGHT	LENGTH
		R/MIN	LB	IN
15LN287-62	1/4"-28 I	320	2.5	12.0
15LN286-62	1/4"-28 I	540	2.5	13.5
15LN285-62	1/4"-28 I	1000	2.5	12.0
15LN284-62	1/4"-28 I	1530	2.5	12.0
15LN283-62	1/4"-28 I	1850	2.5	12.0
15LN282-62	1/4"-28 I	3100	2.5	12.0
15LN281-62	1/4"-28 I	5000	2.5	12.0
15LN288-62	1/4"-28 I	5600	2.5	12.0

All tools performance rated @ 90psi / 620 kPa air pressure.

Air inlet size: 1/4in

Standard Equipment: 600 Series Mini Angle Head with 1/4"-28 internal thread

## 15LN Series - Right Angle Drill - Heavy Duty Head

0.9hp / 0.67kW

540-3900rpm

Ideal for Restricted Access Applications



- -52 1/4"-28 Internal thread standard
- Other terminations Available:
  - 51 10-32 Internal Thread
  - 53 Threaded Collet
  - 54 5/16"-24 Internal Thread
  - 55 3/8"-24 Internal Thread
  - 59NC 3/8"-24 External Thread
- Other Angle Heads Available:
  - 6X Light Duty
  - 7X Compact Style
  - 4X 45 degree Angle Head
  - 9X 360 degree Angle Head
- Rear Exhaust
- Lock off safety lever standard

MODEL	TERMINATION	SPEED	WEIGHT	LENGTH
		R/MIN	LB	IN
15LN286-52	1/4"-28 I	540	3.09	12.8
15LN285-52	1/4"-28 I	870	3.09	12.8
15LN284-52	1/4"-28 I	1070	3.09	12.8
15LN283-52	1/4"-28 I	1300	2.65	11.5
15LN281-52	1/4"-28 I	3500	2.65	11.5
15LN288-52	1/4"-28 I	3900	2.65	11.5

All tools performance rated @ 90psi / 620 kPa air pressure.

Air inlet size: 1/4in

Standard Equipment: 500 Series Heavy Duty Angle Head with 1/4"-28



## Hand Drilling, Countersinking & Spotfacing

### 15LQ Series - Right Angle Drill - Quick Change Indexable Heads

15LF 0.4hp/0.3kW, 15LN 0.9hp/0.67kW - Ideal for Application Kits



- Indexable with Quick Release for Range of Angle Head Attachments shown below
- Lock off safety lever standard

MODEL	TERMINATION	SPEED	WEIGHT	AIR INLET SIZE
		R/MIN	LB	IN
15LF287Q	Q ANGLE HEAD	420 WITH -5X HEADS/600 ALL OTHERS	1.43	1/4
15LF286Q	Q ANGLE HEAD	525 WITH -5X HEADS/750 ALL OTHERS	1.43	1/4
15LF285Q	Q ANGLE HEAD	700 WITH -5X HEADS/1000 ALL OTHERS	1.43	1/4
15LF284Q	Q ANGLE HEAD	1700 WITH -5X HEADS/2400 ALL OTHERS	1.43	1/4
15LF283Q	Q ANGLE HEAD	2300 WITH -5X HEADS/3300 ALL OTHERS	1.43	1/4
15LF282Q	Q ANGLE HEAD	2800 WITH -5X HEADS/4000 ALL OTHERS	1.43	1/4
15LF281Q	Q ANGLE HEAD	3700 WITH -5X HEADS/5300 ALL OTHERS	1.43	1/4
15LN287Q	Q ANGLE HEAD	320 WITH -5X HEADS/460 ALL OTHERS	2.35	1/4
15LN286Q	Q ANGLE HEAD	540 WITH -5X HEADS/770 ALL OTHERS	2.35	1/4
15LN285Q	Q ANGLE HEAD	870 WITH -5X HEADS/1240 ALL OTHERS	2.35	1/4
15LN284Q	Q ANGLE HEAD	1070 WITH -5X HEADS/1530 ALL OTHERS	2.35	1/4
15LN283Q	Q ANGLE HEAD	1300 WITH -5X HEADS/1850 ALL OTHERS	2.35	1/4
15LN282Q	Q ANGLE HEAD	2170 WITH -5X HEADS/3100 ALL OTHERS	2.35	1/4
15LN281Q	Q ANGLE HEAD	3500 WITH -5X HEADS/5000 ALL OTHERS	2.35	1/4

### Q Indexable Quick Change Angle Head Options - Dotco

- Indexable with Quick Release for Use with 15L..Q Power Units
- -Q5 Heads 90 Degree Heavy Duty, -Q6 and Q7 light duty/compact heads
- -Q4 Heads 45 Degree, - Q9 360 degree head
- 1/4"-28 Internal Thread for Threaded Cutters
- 9/32"-40 Internal Thread for Threaded Collets



MODEL	DESCRIPTION	SPINDLE SIZE
302206PT-Q42	45° ANGLE HEAD	1/4"-28 INTERNAL THREAD
302206PT-Q43	45° ANGLE HEAD	9/32"-40 INTERNAL THREAD
302206PT-Q52	HEAVY DUTY ANGLE HEAD - 500 SERIES	1/4"-28 INTERNAL THREAD
302206PT-Q53	HEAVY DUTY ANGLE HEAD - 500 SERIES	9/32"-40 INTERNAL THREAD
302206PT-Q59	HEAVY DUTY ANGLE HEAD - 500 SERIES	3/8"-24 EXTERNAL THREAD
302206PT-Q62	MINI ANGLE HEAD - 600 SERIES	1/4"-28 INTERNAL THREAD
302206PT-Q63	MINI ANGLE HEAD - 600 SERIES	9/32"-40 INTERNAL THREAD
302206PT-Q72	COMPACT ANGLE HEAD - 700 SERIES	1/4"-28 INTERNAL THREAD
302206PT-Q73	COMPACT ANGLE HEAD - 700 SERIES	9/32"-40 INTERNAL THREAD
302206PT-Q92	360° ANGLE HEAD	1/4"-28 INTERNAL THREAD
302206PT-Q93	360° ANGLE HEAD	9/32"-40 INTERNAL THREAD

## 15L Series - Compact Angle Head

- Compact short reach angle head for restricted access applications
- -71 10-32 Internal Thread for Direct Cutter Mount
- -72 1/4"-28 Internal Thread For Direct Cutter Mount and Collet Adaptor  
Option 14-1569 (Mini Collet) Max 1/4"/6.4mm
- -73 Threaded Collet Max #10/5mm - Collets Ordered Separately



MODEL	DESCRIPTION	TOOL TERMINATION	SPINDLE SIZE
1021620	HEAVY DUTY ANGLE HEAD - 500 SERIES	-59NC	3/8"-24 EXTERNAL THREAD
1025328	MINI ANGLE HEAD - 600 SERIES	-64	5/16"-24 INTERNAL THREAD
1025476	COMPACT ANGLE HEAD - 700 SERIES	-73	9/32"-40 INTERNAL THREAD
1025477	COMPACT ANGLE HEAD - 700 SERIES	-72	1/4"-28 INTERNAL THREAD
1025668	COMPACT ANGLE HEAD - 700 SERIES	-74	5/16"-24 INTERNAL THREAD

These drill attachments can be ordered as a separate accessory item or as part of a complete model. To order as a complete model, use the basic model number from the appropriate 15LF, 15LS, or 15LN catalog page and replace the termination number -32 for example with the termination number of the desired optional attachment -71 for example from this page.

## 15L Series - Light Duty Angle Head

- -61 10-32 Internal Thread for Direct Cutter Mount
- -62 1/4"-28 Internal Thread For Direct Cutter Mount and Collet Adaptor  
Option 14-1569 (Mini Collet) Max 1/4"/6.4mm
- -63 Threaded Collet Max #10/5mm - Collets Ordered Separately
- -64 5/16"-24 Internal Thread



MODEL	DESCRIPTION	TOOL TERMINATION	SPINDLE SIZE
1025313	MINI ANGLE HEAD - 600 SERIES	-63	9/32"-40 INTERNAL THREAD
1025314	MINI ANGLE HEAD - 600 SERIES	-61	#10-32 INTERNAL THREAD
1025409	MINI ANGLE HEAD - 600 SERIES	-62	1/4"-28 INTERNAL THREAD

These drill attachments can be ordered as a separate accessory item or as part of a complete model. To order as a complete model, use the basic model number from the appropriate 15LF, 15LS, or 15LN catalog page and replace the termination number -32 for example with the termination number of the desired optional attachment -71 for example from this page.

# Hand Drilling, Countersinking & Spotfacing

## 15L Series - Heavy Duty Angle Head

- -52 1/4"-28 Internal Thread For Direct Cutter Mount and Collet Adaptor Option 14-1569 (Mini Collet) Max 1/4"/6.4mm
- -53 Threaded Collet Max #10/5mm - Collets Ordered Separately
- -54 5/16"-24 Internal Thread
- -59NC 3/8"-24 External Thread for chuck or collet adaptor mounting



MODEL	DESCRIPTION	TOOL TERMINATION	SPINDLE SIZE
1021289	HEAVY DUTY ANGLE HEAD - 500 SERIES	-52	1/4"-28 INTERNAL THREAD
1021291	HEAVY DUTY ANGLE HEAD - 500 SERIES	-54	5/16"-24 INTERNAL THREAD
1021292	HEAVY DUTY ANGLE HEAD - 500 SERIES	-53	9/32"-40 INTERNAL THREAD
1025780	HEAVY DUTY ANGLE HEAD - 500 SERIES	-55	3/8"-24 INTERNAL THREAD

These drill attachments can be ordered as a separate accessory item or as part of a complete model. To order as a complete model, use the basic model number from the appropriate 15LF, 15LS, or 15LN catalog page and replace the termination number -32 for example with the termination number of the desired optional attachment -71 for example from this page.

## 15L Series - 45 Degree Angle Head

- For difficult access applications
- -42 1/4"-28 Internal Thread For Direct Cutter Mount and Collet Adaptor Option 14-1569 (Mini Collet) Max 1/4"/6.4mm
- -43 Threaded Collet Max #10/5mm - Collets Ordered Separately
- -44 5/16"-24 Internal Thread



MODEL	DESCRIPTION	TOOL TERMINATION	SPINDLE SIZE
1025730	45° ANGLE HEAD	-42	1/4"-28 INTERNAL THREAD
1025731	45° ANGLE HEAD	-43	9/32"-40 INTERNAL THREAD
1025733	45° ANGLE HEAD	-44	5/16"-24 INTERNAL THREAD

These drill attachments can be ordered as a separate accessory item or as part of a complete model. To order as a complete model, use the basic model number from the appropriate 15LF, 15LS, or 15LN catalog page and replace the termination number -32 for example with the termination number of the desired optional attachment -71 for example from this page.

## 15 L Series - 360° Angle Head

- Versatile swivel head for very difficult access applications
- -91 10-32 Internal Thread for Direct Cutter Mount
- -92 1/4"-28 Internal Thread For Direct Cutter Mount and Collet Adaptor Option 14-1569 (Mini Collet) Max 1/4"/6.4mm



MODEL	DESCRIPTION	TOOL TERMINATION	SPINDLE SIZE
1025694	360° ANGLE HEAD	-92	1/4"-28 INTERNAL THREAD
1025696	360° ANGLE HEAD	-91	#10-32 INTERNAL THREAD

These drill attachments can be ordered as a separate accessory item or as part of a complete model. To order as a complete model, use the basic model number from the appropriate 15LF, 15LS, or 15LN catalog page and replace the termination number -32 for example with the termination number of the desired optional attachment -71 for example from this page.

## Collets

For use on Cleco Dotco 15LF, 15LS & 15LN right angle drills with 9/32"-40 spindles.



- For use on Cleco Dotco 15LF, 15LS & 15LN right angle drills with 9/32"-40 spindles.
- (Termination codes: - 43, -53, -63, -73, & -93)

MODEL	DRILL SIZE		
	NO	IN	MM
1006408	53	0.0595	
1005180	1/16	0.0625	
316PT		0.0630	1.6
1006412	51	0.0670	1.7
320PT		0.0787	2
1005875	46	0.0830	
1005182	3/32	0.0938	2.4
324PT		0.0945	
1005684	40	0.0980	2.5
325PT		0.0984	
1006395	39	0.0995	2.5
326PT		0.1024	
1005183	7/64	0.1094	2.8
330PT		0.1181	3
1005873	31	0.1200	
1005184	1/8	0.1250	3.2
332PT		0.1260	
1013904	30	0.1285	3.3
333PT		0.1299	
1005185	9/64	0.1406	
1005872	27	0.1440	
1006373	26	0.1470	
1005186	5/32	0.1563	
1005926	22	0.1570	4.0
340PT		0.1575	
1005682	21	0.1590	
1005876	20	0.1610	4.1
341PT		0.1614	
1006035	19	0.1650	4.2
342PT		0.1654	
1005187	11/64	0.1719	
1005977	17	0.1730	4.4
344PT		0.1732	4.4
1006346	16	0.1770	
345PT		0.1772	4.5
1005927	13	0.1850	
347PT		0.1850	4.7
1005188	3/16	0.1875	
1005871	12	0.1890	
348PT		0.1890	4.8
1005681	10	0.1910	
1006001	11	0.1935	
350PT		0.1969	5

Other sizes available, please contact Cleco Production Tools

# Hand Drilling, Countersinking & Spotfacing

## Jacobs Chucks

Keyed and Keyless up to 1/2" Capacity



MODEL	DESCRIPTION	CAPACITY	TERM.
		IN	IN
1075	OB	5/32	5/16"-24
1001505	7 BA	1/4	3/8"-24
1005078	1 BA	1/4	3/8"-24
33633	KEYLESS	5/16	3/8"-24
1001252	41 BA (MED. DUTY)	3/8	3/8"-24
100442-2	2 BA (MED. DUTY)	3/8	3/8"-24
1110945	KEYLESS (31073)	3/8	3/8"-24
863420	22 BA (LIGHT DUTY)	3/8	3/8"-24
33663D	KEYLESS	25/64	3/8"-24
1009726	33 BA	1/2	3/8"-24

## 300 Series - Collet Chuck

Up to 1/4" Capacity

- Use with Standard Collet: 1/4" (#308).
- Termination Number: -36



MODEL	DESCRIPTION
14-1148	1/64"-1/4" CAPACITY WITH A 5/16"-24 FEMALE THREAD

## QRA Series - Quick Change Chuck

For 3/8"-24 Thread | 1/4" Hex



MODEL	DESCRIPTION	SPINDLE SIZE	CHUCK SIZE
		IN	IN
849414	FOR 3/8"-24 THREAD   1/4" HEX	3/8"-24	1/4

## TULMan Electronic Counter

Cycle or Run Time Counter for Small Pneumatic Tools Up to 20cfm / 570 lpm



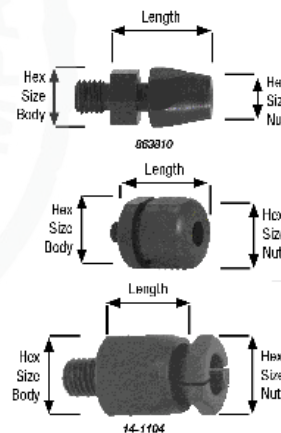
- First ever odometer and tripometer for small pneumatic tools
- Useable on any small pneumatic device with suitable air flow, including Cleco & Dotco products
- Manage tool service and tool calibration, quantify & compare tool consumable life
- Monitor workforce productivity, improve quality of product or process and realize cost savings
- LED indicator lights blink yellow (warning) and red as cycle and run time limits are reached.
- Easy-to-use monitoring software included
- Tamper-proof cover for micro-USB access

MODEL	MAX PRESSURE	MAX FLOW	MIN FLOW	WEIGHT
	LB/IN <sup>2</sup>   BAR	CFM   L/MIN	CFM   L/MIN	LB
240461PT	100 LB/IN <sup>2</sup>   6.9 BAR	20   570	5   145	0.176

## Straight Shank Drill Adaptors

For use with Cleco Dotco 15LF, 15LS & 15LN right angle drills with 1/4"-28 spindles.

- For use on Cleco 15LF, 15LS & 15LN right angle drills
- Adapts 1/4"-28 output to collet/chuck for straight shank drills



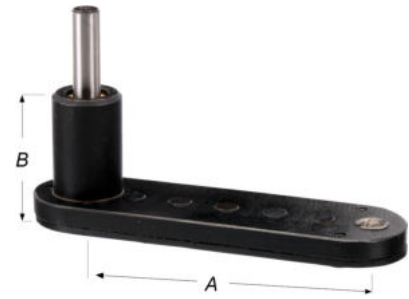
MODEL	DESCRIPTION	SHANK DIAMETER CAPACITY	LENGTH	HEX SIZE BODY/NUT
			IN	IN
1020699	CONE JAW CHUCK	.040 IN   1/4 IN	0.9 IN	0.75 / 0.75
14-0158	MINI CHUCK - COLLET ONLY	1/8 IN	0.65 IN	
14-1102	MINI CHUCK - ASSEMBLY	1/8 IN	0.65 IN	0.437 / 0.375
14-1568	MINI CHUCK - ADAPTOR ONLY	1/8 IN	0.65 IN	
863810	MINI COLLET NUT	3/16 IN	0.8 IN	0.500 / 0.500
14-0168	MINI CHUCK - COLLET ONLY	1/4 IN	0.7 IN	
14-1104	MINI CHUCK - ASSEMBLY	1/4 IN	0.7 IN	0.500 / 0.437
14-1569	MINI CHUCK - ADAPTOR ONLY	1/4 IN	0.7 IN	
863806	MINI COLLET NUT	1/4 IN	0.8 IN	0.500 / 0.500
14-0170	MINI CHUCK - COLLET ONLY	6 MM	0.7 IN	
14-1094	MINI CHUCK - ASSEMBLY	6 MM	0.7 IN	0.500 / 0.437

# Hand Drilling, Countersinking & Spotfacing

## RB106 - Flat Offset Angle Drill

Use in Pistol Drills for Difficult Access Applications

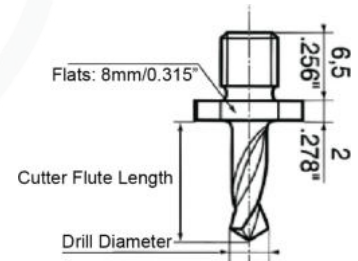
- 10-32 thread for cutter attachment
- 6mm/0.236" Shank Diameter
- Recommended maximum drilling capacity 5mm/0.197" in Aluminium
- Recommended maximum countersinking capacity 10mm/0.394" in Aluminium



MODEL	A	B	WEIGHT	
			LB	G
10080005	84	28	0.220	100
10080010	84	112.5	0.397	180
10080015	63	28	0.287	130
10080020	63	112.5	0.49	220

## Cutters for Flat Offset Angle Drill

- These cutters are designed for use with the flat offset angle drill RB 106 with UNF 10-32 F spindle thread.
- Recommended for use with Dotco hand drills
- Can be used in aluminum



MODEL	DRILL DIAMETER		CUTTER FLUTE LENGTH	
	MM	IN	IN	MM
33000020	2.5	0.098	0.472	12
33000625	2.5	0.098	0.79	20
33000025	3	0.118	0.472	12
33000132	3.2	0.126	0.315	8
33000030	3.2	0.126	0.472	12
33000632	3.2	0.126	0.79	20
33000040	4	0.157	0.472	12
33000240	4	0.157	0.59	15
33000248	4.8	0.189	0.59	15

## RB1130/60QBSF/70QBSF - Manual Back Spotfacer

Fixed Speed 0.6hp / 0.4kW 460rpm  
Variable Speed 0.7hp / 0.5kW 150-550rpm



- Specially designed for all back-spotfacing operations with an accuracy of 001" / .025mm micro adjustment
- Fixed speed (RB 1130 | 60QBSF) or adjustable speed (RB 1130-2 | 70QBSF) for use in light alloys or steel
- Machine design provides smooth and easy feed without strain on the operator
- Wide range of interchangeable collets
- Feed lever with 360° orientation
- Wide range of cutters available - threaded or with quick bayonet lock

MODEL	MOTOR	SPEED	FIXTURING	ACCESSORIES	STROKE	WEIGHT
	CONFIGURATION	R/MIN	OPTIONS		IN   MM	LB
60QBSF/ RB1130-1	PISTOL GRIP	500	NA	•SPINDLE COLLET •SPINDLE PILOT •BACK SPOT FACING CUTTERS	0.394   10.0	4.9
70QVBSF/ RB1130-2	PISTOL GRIP	150-550	NA	•SPINDLE COLLET •SPINDLE PILOT •BACK SPOT FACING CUTTERS	0.591   15.0	5.5

Air Pressure: 90psi | 6.3bar  
Recommended Hose Size: 3/8in | 10mm

## Standard Collets



MODEL	DIAMETER	
	IN	MM
70110200	0.0787	2
70110250	0.098	2.5
70110300	0.1181	3
70110350		3.5
70110400	5/32	4
70110480	3/16	4.8
70110500	0.1968	5
70110550		5.5
70110600	0.2362	6
70110635	1/4	6.35
70110794	5/16	7.94
70110952	3/8	9.52

Alternate collet diameters available upon request.



# Hand Drilling, Countersinking & Spotfacing

## RB 156 - Microstop Cage

Stroke 3.5mm/0.14in

Cutter Thread M6 x 1

- Cemented, hardened and ground chrome-nickel steel spindle mounted on a self lubricating bronze body and a thrust bearing.
- Centring-cone of the cutter (120°) for perfect concentricity.
- Microstop depth adjustment (1 scale division = .001”).
- Microstop depth setting is held securely in place by locknut with seal. This patented feature allows an easy loosening of the lock-nut without damage to the drill cage.



MODEL	INPUT STYLE	SHANK		CUTTER THREAD	STROKE MM	VACUUM	MOUNTING BASE STYLE	WINDOW SIZE	NOSE INSERT STYLE	DIAMETER MAX. MM	OVERALL LENGTH MAX MM	OVERALL LENGTH MIN MM	WEIGHT G
		IN	MM										
10000010	FIXED SHANK	0.189	4.8	M6 X 1	3.5	NO	TAPPED M19F FOR NOSE	SMALL	NYLON	25	55	51	75
100000100	FIXED SHANK	0.189	4.8	M6 X 1	3.5	NO	OFFSET MOUNTING BASE	SMALL	NONE	25	55	51	75
10000010W	FIXED SHANK	0.189	4.8	M6 X 1	3.5	NO	TAPPED M19F FOR NOSE	LARGE	NYLON	25	55	51	75
100000100 W	FIXED SHANK	0.189	4.8	M6 X 1	3.5	NO	OFFSET MOUNTING BASE	LARGE	NONE	25	55	51	75

## RB206 & RB(I) 206 Microstop Cage

Stroke 6mm/0.24in

Cutter Thread RB 206 M6 x 1 RBI 206 1/4"-28

- Different mounting bases available
- For composites mounting base with vacuum
- Cemented, hardened and ground chrome-nickel steel spindle mounted on a self lubricating bronze body and a thrust bearing.
- Centring-cone of the cutter (120°) for perfect concentricity.
- Microstop depth adjustment (1 scale division = .001").
- Microstop depth setting is held securely in place by locknut with seal. This patented feature allows an easy loosening of the locknut without damage to the drill cage.



MODEL	INPUT STYLE	SHANK		CUTTER THREAD	STROKE MM	VACUUM	MOUNTING BASE STYLE	WINDOW SIZE	NOSE INSERT STYLE	DIAMETER MAX. MM	OVERALL LENGTH MAX MM	OVERALL LENGTH MIN MM	WEIGHT G
		IN	MM										
10005355W	FIXED SHANK	0.236	6.0	1/4"-28	6	NO	TAPPED M16F FOR NOSE	LARGE	NYLON	21	101	95	120
10005355	FIXED SHANK	0.236	6.0	1/4"-28	6	NO	TAPPED M16F FOR NOSE	SMALL	NYLON	21	101	95	120
10005050W	FIXED SHANK	0.236	6.0	1/4"-28	6	NO	NONE/FLAT BASE	LARGE	NONE	21	101	95	120
10005050	FIXED SHANK	0.236	6.0	1/4"-28	6	NO	NONE/FLAT BASE	SMALL	NONE	21	101	95	120
10005250W	FIXED SHANK	0.236	6.0	1/4"-28	6	YES	NONE/OFFSET BASE	LARGE	NONE	21	101	95	120
10005250	FIXED SHANK	0.236	6.0	1/4"-28	6	NO	NONE/OFFSET BASE	SMALL	NONE	21	101	95	120
10005356W	FIXED SHANK	0.236	6.0	1/4"-28	6	YES	TAPPED M16F FOR NOSE	LARGE	NONE	21	101	95	120
10005356	FIXED SHANK	0.236	6.0	1/4"-28	6	YES	TAPPED M16F FOR NOSE	SMALL	NONE	21	101	95	120
10005051W	FIXED SHANK	0.236	6.0	1/4"-28	6	YES	NONE/FLAT BASE	LARGE	NONE	21	101	95	120
10005051	FIXED SHANK	0.236	6.0	1/4"-28	6	YES	NONE/FLAT BASE	SMALL	NONE	21	101	95	120
10005305W	FIXED SHANK	0.236	6.0	M6 X 1	6	NO	TAPPED M16F FOR NOSE	LARGE	NYLON	21	101	95	120
10005305	FIXED SHANK	0.236	6.0	M6 X 1	6	NO	TAPPED M16F FOR NOSE	SMALL	NYLON	21	101	95	120
10005000W	FIXED SHANK	0.236	6.0	M6 X 1	6	NO	NONE/FLAT BASE	LARGE	NONE	21	101	95	120
10005000	FIXED SHANK	0.236	6.0	M6 X 1	6	NO	NONE/FLAT BASE	SMALL	NONE	21	101	95	120
10005200W	FIXED SHANK	0.236	6.0	M6 X 1	6	NO	NONE/OFFSET BASE	LARGE	NONE	21	101	95	120
10005200	FIXED SHANK	0.236	6.0	M6 X 1	6	NO	NONE/OFFSET BASE	SMALL	NONE	21	101	95	120
10005306W	FIXED SHANK	0.236	6.0	M6 X 1	6	YES	TAPPED M16F FOR NOSE	LARGE	NONE	21	101	95	120
10005306	FIXED SHANK	0.236	6.0	M6 X 1	6	YES	TAPPED M16F FOR NOSE	SMALL	NONE	21	101	95	120
10005001W	FIXED SHANK	0.236	6.0	M6 X 1	6	YES	NONE/FLAT BASE	LARGE	NONE	21	101	95	120
10005001	FIXED SHANK	0.236	6.0	M6 X 1	6	YES	NONE/FLAT BASE	SMALL	NONE	21	101	95	120

# Hand Drilling, Countersinking & Spotfacing

## RB 256 & RB(I)256 - Microstop Cage

Stroke 7.5mm/0.30in

Cutter Thread RB 206 M6x1 RB(I) 206 1/4"-28

- Different mounting bases available
- For special composites mounting base with vacuum
- Cemented, hardened and ground chrome-nickel steel spindle mounted on a self lubricating bronze body and a thrust bearing.
- Centring-cone of the cutter (120°) for perfect concentricity.
- Microstop depth adjustment (1 scale division = .001").
- Microstop depth setting is held securely in place by locknut with seal. This patented feature allows an easy loosening of the lock-nut without damage to the drill cage.



MODEL	INPUT STYLE	SHANK		CUTTER THREAD	STROKE MM	VACUUM	MOUNTING BASE STYLE	WINDOW SIZE	NOSE INSERT STYLE	DIAMETER MAX. MM	OVERALL LENGTH MAX MM	OVERALL LENGTH MIN MM	WEIGHT G
		IN	MM										
10010110W	FIXED SHANK	0.236	6.0	1/4"-28	7.5	NO	M19F	LARGE	HARD CHROME	28	98	91	175
10010110	FIXED SHANK	0.236	6.0	1/4"-28	7.5	NO	M19F	SMALL	HARD CHROME	28	98	91	175
10010111W	FIXED SHANK	0.236	6.0	1/4"-28	7.5	YES	M19F	LARGE	HARD CHROME	28	98	91	175
10010111	FIXED SHANK	0.236	6.0	1/4"-28	7.5	YES	M19F	SMALL	HARD CHROME	28	98	91	175
10010115W	FIXED SHANK	0.236	6.0	1/4"-28	7.5	NO	M19F	LARGE	NYLON	28	98	91	175
10010115	FIXED SHANK	0.236	6.0	1/4"-28	7.5	NO	M19F	SMALL	NYLON	28	98	91	175
10010116W	FIXED SHANK	0.236	6.0	1/4"-28	7.5	YES	M19F	LARGE	NYLON	28	98	91	175
10010116	FIXED SHANK	0.236	6.0	1/4"-28	7.5	YES	M19F	SMALL	NYLON	28	98	91	175
10010010W	FIXED SHANK	0.236	6.0	M6 X 1	7.5	NO	M19F	LARGE	HARD CHROME	28	98	91	175
10010010	FIXED SHANK	0.236	6.0	M6 X 1	7.5	NO	M19F	SMALL	HARD CHROME	28	98	91	175
10010001W	FIXED SHANK	0.236	6.0	M6 X 1	7.5	YES	M19F	LARGE	HARD CHROME	28	98	91	175
10010001	FIXED SHANK	0.236	6.0	M6 X 1	7.5	YES	M19F	SMALL	HARD CHROME	28	98	91	175
10010015W	FIXED SHANK	0.236	6.0	M6 X 1	7.5	NO	M19F	LARGE	NYLON	28	98	91	175
10010015	FIXED SHANK	0.236	6.0	M6 X 1	7.5	NO	M19F	SMALL	NYLON	28	98	91	175
10010016W	FIXED SHANK	0.236	6.0	M6 X 1	7.5	YES	M19F	LARGE	NYLON	28	98	91	175
10010016	FIXED SHANK	0.236	6.0	M6 X 1	7.5	YES	M19F	SMALL	NYLON	28	98	91	175
10010205W	FIXED SHANK	0.236	6.0	M6 X 1	7.5	YES	M30 X 1M	LARGE	NYLON	28	98	91	175
10010205	FIXED SHANK	0.236	6.0	M6 X 1	7.5	YES	M30 X 1M	SMALL	NYLON	28	98	91	175

## RB 257 - Microstop Cage

Stroke 6mm/0.24"

Cutter Thread M6 x 1

- Different mounting bases available
- For composites mounting base with vacuum
- High precision microstop cage, body in heat treated chrome steel, fully ground throughout. This ball mounted microstop cage includes two needle bearings for best utilisation.
- When using the RB 257, any misalignment of the microstop cage is corrected by the unique ball pivoting spindle. This assembly ensures perpendicularity throughout the operation at all time.
- Centring cone of the cutter (120°) for perfect concentricity.
- Microstop depth adjustment (1 scale division = .001").
- Microstop depth setting is held securely in place by locknut with seal. This patented feature allows an easy loosening of the locknut without damage to the drill cage.



MODEL	INPUT STYLE	SHANK		CUTTER THREAD	STROKE MM	VACUUM	MOUNTING BASE STYLE	WINDOW SIZE	NOSE INSERT STYLE	DIAMETER MAX. MM	OVERALL LENGTH MAX MM	OVERALL LENGTH MIN MM	WEIGHT G
		IN	MM										
10015015W	BALL PIVOT	0.236	6.0	M6 X 1	6	NO	M16F AND M26M	LARGE	HARD CHROME	29	92	88	165
10015015	BALL PIVOT	0.236	6.0	M6 X 1	6	NO	M16F AND M26M	SMALL	HARD CHROME	29	92	88	165
RC-10015020W	BALL PIVOT	0.236	6.0	M6 X 1	6	NO	M16F AND M26M	LARGE	NYLON	29	92	88	165
RC-10015020	BALL PIVOT	0.236	6.0	M6 X 1	6	NO	M16F AND M26M	SMALL	NYLON	29	92	88	165
10015010W	BALL PIVOT	0.236	6.0	M6 X 1	6	NO	M16F AND M26M	LARGE	ROTARY CELORON	29	92	88	165
10015010	BALL PIVOT	0.236	6.0	M6 X 1	6	NO	M16F AND M26M	SMALL	ROTARY CELORON	29	92	88	175
10015200W	BALL PIVOT	0.236	6.0	M6 X 1	6	NO	THREE NYLON PADS	LARGE	NONE	29	92	88	165
10015200	BALL PIVOT	0.236	6.0	M6 X 1	6	NO	THREE NYLON PADS	SMALL	NONE	29	92	88	165
10015016W	BALL PIVOT	0.236	6.0	M6 X 1	6	YES	M16F AND M26M	LARGE	HARD CHROME	29	92	88	165
10015016	BALL PIVOT	0.236	6.0	M6 X 1	6	YES	M16F AND M26M	SMALL	HARD CHROME	29	92	88	165
10015021W	BALL PIVOT	0.236	6.0	M6 X 1	6	YES	M16F AND M26M	LARGE	CELORON	29	92	88	165
10015021	BALL PIVOT	0.236	6.0	M6 X 1	6	YES	M16F AND M26M	SMALL	CELORON	29	92	88	165
10015001W	BALL PIVOT	0.236	6.0	M6 X 1	6	YES	M16F AND M26M	LARGE	ROTARY CELORON	29	92	88	165
10015001	BALL PIVOT	0.236	6.0	M6 X 1	6	YES	M16F AND M26M	SMALL	ROTARY CELORON	29	92	88	165

# Hand Drilling, Countersinking & Spotfacing

## RB(I) 258 - Microstop Cage

Stroke 27mm/1.06"

Cutter Thread M8 x 1 or 1/4"-28

- High precision microstop cage, body in heat treated chrome steel, fully ground throughout. This ball mounted microstop cage includes two needle bearings for best utilisation.
- When using the RB 258, any misalignment of the microstop cage is corrected by the unique ball pivoting spindle. This assembly ensures perpendicularity throughout the operation at all time.
- Centring cone of the cutter (120°) for perfect concentricity.
- Microstop depth adjustment (1 scale division = .001").
- Microstop depth setting is held securely in place by locknut with seal. This patented feature allows an easy loosening of the locknut without damage to the drill cage.



MODEL	INPUT STYLE	SHANK		CUTTER	STROKE	VACUUM	MOUNTING	WINDOW	NOSE INSERT	DIAMETER MAX.	OVERALL LENGTH MAX	OVERALL LENGTH MIN	WEIGHT
		IN	MM	THREAD	MM		BASE STYLE						
10015500W	BALL PIVOT	0.250	6.35	M6 X 1	27	NO	TAPPED M19F FOR NOSE	LARGE		29	156	141	250
10015500PT	BALL PIVOT	0.250	6.35	M6 X 1	27	NO	TAPPED M19F FOR NOSE	SMALL	NYLON	29	156	141	250
10015550W	BALL PIVOT	0.250	6.35	1/4"-28	27	NO	TAPPED M19F FOR NOSE	LARGE		29	156	141	250
10015550	BALL PIVOT	0.250	6.35	1/4"-28	27	NO	TAPPED M19F FOR NOSE	SMALL	NYLON	29	156	141	250

## RB 306 - Microstop Cage

Stroke 7.5mm/0.3"

Cutter Thread M8 x 1

- Different mounting bases available
- This cage has been designed for use with cutters greater than 0.394" dia.
- For special composites mounting base with vacuum
- Cemented, hardened and ground chrome-nickel steel spindle mounted on a self lubricating bronze body and a thrust bearing.
- Centring-cone of the cutter (120°) for perfect concentricity.
- Microstop depth adjustment (1 scale division = .001").
- Microstop depth setting is held securely in place by locknut with seal. This patented feature allows an easy loosening of the locknut without damage to the drill cage.



MODEL	INPUT STYLE	SHANK		CUTTER THREAD	STROKE MM	VACUUM	MOUNTING BASE STYLE	WINDOW SIZE	NOSE INSERT STYLE	DIAMETER MAX. MM	OVERALL LENGTH MAX MM	OVERALL LENGTH MIN MM	WEIGHT G
		IN	MM										
10025105W	FIXED SHANK	0.236	6	M8 X 1	7.5	NO	M30M	LARGE	HARD CHROME	28	98	91	185
10025105	FIXED SHANK	0.236	6	M8 X 1	7.5	NO	M30M	SMALL	HARD CHROME	28	98	91	185
RC-10025010W	FIXED SHANK	0.236	6	M8 X 1	7.5	NO	M26M	LARGE	HARD CHROME	28	98	91	185
RC-10025010	FIXED SHANK	0.236	6	M8 X 1	7.5	NO	M26M	SMALL	HARD CHROME	28	98	91	185
10025110W	FIXED SHANK	0.236	6	M8 X 1	7.5	NO	M30M	LARGE	NYLON	28	98	91	185
10025110	FIXED SHANK	0.236	6	M8 X 1	7.5	NO	M30M	SMALL	NYLON	28	98	91	185
RC-10025015W	FIXED SHANK	0.236	6	M8 X 1	7.5	NO	M26M	LARGE	NYLON	28	98	91	185
RC_10025015	FIXED SHANK	0.236	6	M8 X 1	7.5	NO	M26M	SMALL	NYLON	28	98	91	185
10025117W	FIXED SHANK	0.236	6	M8 X 1	7.5	YES	M30M	LARGE	HARD CHROME	28	98	91	185
10025117	FIXED SHANK	0.236	6	M8 X 1	7.5	YES	M30M	SMALL	HARD CHROME	28	98	91	185
10025001W	FIXED SHANK	0.236	6	M8 X 1	7.5	YES	M26M	LARGE	HARD CHROME	28	98	91	185
10025001	FIXED SHANK	0.236	6	M8 X 1	7.5	YES	M26M	SMALL	HARD CHROME	28	98	91	185
10025111W	FIXED SHANK	0.236	6	M8 X 1	7.5	YES	M30M	LARGE	NYLON	28	98	91	185
10025111	FIXED SHANK	0.236	6	M8 X 1	7.5	YES	M30M	SMALL	NYLON	28	98	91	185
10025016W	FIXED SHANK	0.236	6	M8 X 1	7.5	YES	M26M	LARGE	NYLON	28	98	91	185
10025016	FIXED SHANK	0.236	6	M8 X 1	7.5	YES	M26M	SMALL	NYLON	28	98	91	185
10025116W	FIXED SHANK	0.236	6	M8 X 1	7.5	YES	M30M	LARGE	ROTARY CELORON	28	98	91	185
10025116	FIXED SHANK	0.236	6	M8 X 1	7.5	YES	M30M	SMALL	ROTARY CELORON	28	98	91	185

# Hand Drilling, Countersinking & Spotfacing

## RB(I) 307 - Microstop Cage

Stroke 7mm/0.3"

Cutter Thread M8 x 1 or 1/2"-28

- Different mounting bases available
- Reduced dimensions for tight access areas
- For special composites mounting base with vacuum
- High precision microstop cage, body in heat treated chrome steel, fully ground throughout. This ball mounted microstop cage includes two needle bearings for best utilisation.
- When using the RB 307, any misalignment of the microstop cage is corrected by the unique ball pivoting spindle. This assembly ensures perpendicularity throughout the operation at all time.
- Centring cone of the cutter (120°) for perfect concentricity.
- Microstop depth adjustment (1 scale division = .001").
- Microstop depth setting is held securely in place by locknut with seal. This patented feature allows an easy loosening of the lock-nut without damage to the drill cage.



MODEL	INPUT STYLE	SHANK		CUTTER THREAD	STROKE MM	VACUUM	MOUNTING BASE STYLE	WINDOW SIZE	NOSE INSERT STYLE	DIAMETER MAX. MM	OVERALL LENGTH MAX MM	OVERALL LENGTH MIN MM	WEIGHT G
		IN	MM										
10020160W	BALL PIVOT	0.236	6	1/4"-28	7	NO	M19F AND M26M	LARGE	HARD CHROME	29	98	88	165
10020160	BALL PIVOT	0.236	6	1/4"-28	7	NO	M19F AND M26M	SMALL	HARD CHROME	29	98	88	165
10020065W	BALL PIVOT	0.236	6	1/4"-28	7	NO	M19F AND M26M	LARGE	HARD CHROME	29	98	88	165
10020065	BALL PIVOT	0.236	6	1/4"-28	7	NO	M19F AND M26M	SMALL	HARD CHROME	29	98	88	165
10020070W	BALL PIVOT	0.236	6	1/4"-28	7	NO	M19F AND M26M	LARGE	NYLON	29	98	88	165
10020070	BALL PIVOT	0.236	6	1/4"-28	7	NO	M19F AND M26M	SMALL	NYLON	29	98	88	165
10020060W	BALL PIVOT	0.236	6	1/4"-28	7	NO	M19F AND M26M	LARGE	ROTARY CELERON	29	98	88	165
10020060	BALL PIVOT	0.236	6	1/4"-28	7	NO	M19F AND M26M	SMALL	ROTARY CELERON	29	98	88	165
10020155W	BALL PIVOT	0.236	6	1/4"-28	7	NO	M19F AND M26M	LARGE	ROTARY CELERON	29	98	88	165
10020155	BALL PIVOT	0.236	6	1/4"-28	7	NO	M19F AND M26M	SMALL	ROTARY CELERON	29	98	88	165
10020250W	BALL PIVOT	0.236	6	1/4"-28	7	NO	3 NYLON PADS	LARGE	NONE	29	98	88	165

# Hand Drilling, Countersinking & Spotfacing

MODEL	INPUT STYLE	SHANK		CUTTER	STROKE	VACUUM	MOUNTING	WINDOW	NOSE INSERT	DIAMETER MAX.	OVERALL LENGTH MAX	OVERALL LENGTH MIN	WEIGHT
		IN	MM	THREAD	MM		BASE STYLE	SIZE	STYLE	MM	MM	MM	G
10020250	BALL PIVOT	0.236	6	1/4"-28	7	NO	3 NYLON PADS	SMALL	NONE	29	98	88	165
10020165W	BALL PIVOT	0.236	6	1/4"-28	7	NO	M19F AND M26M	LARGE	NYLON	29	98	88	165
10020165	BALL PIVOT	0.236	6	1/4"-28	7	NO	M19F AND M26M	SMALL	NYLON	29	98	88	165
10020166W	BALL PIVOT	0.236	6	1/4"-28	7	YES	M19F AND M26M	LARGE	NYLON	29	98	88	165
10020166	BALL PIVOT	0.236	6	1/4"-28	7	YES	M19F AND M26M	SMALL	NYLON	29	98	88	165
10020110W	BALL PIVOT	0.236	6	M8 X 1	7	NO	M19F AND M26M	LARGE	HARD CHROME	29	98	88	165
10020110	BALL PIVOT	0.236	6	M8 X 1	7	NO	M19F AND M26M	SMALL	HARD CHROME	29	98	88	165
10020015W	BALL PIVOT	0.236	6	M8 X 1	7	NO	M19F AND M26M	LARGE	HARD CHROME	29	98	88	165
10020015	BALL PIVOT	0.236	6	M8 X 1	7	NO	M19F AND M26M	SMALL	HARD CHROME	29	98	88	165
10020020W	BALL PIVOT	0.236	6	M8 X 1	7	NO	M19F AND M26M	LARGE	NYLON	29	98	88	165
10020020	BALL PIVOT	0.236	6	M8 X 1	7	NO	M19F AND M26M	SMALL	NYLON	29	98	88	165
10020115W	BALL PIVOT	0.236	6	M8 X 1	7	NO	M30M	LARGE	NYLON	29	98	88	165
10020115	BALL PIVOT	0.236	6	M8 X 1	7	NO	M30M	SMALL	NYLON	29	98	88	165
10020010W	BALL PIVOT	0.236	6	M8 X 1	7	NO	M19F AND M26M	LARGE	ROTARY CELERON	29	98	88	165
10020010	BALL PIVOT	0.236	6	M8 X 1	7	NO	M19F AND M26M	SMALL	ROTARY CELERON	29	98	88	165
10020105W	BALL PIVOT	0.236	6	M8 X 1	7	NO	M19F AND M26M	LARGE	ROTARY CELERON	29	98	88	165
10020105	BALL PIVOT	0.236	6	M8 X 1	7	NO	M19F AND M26M	SMALL	ROTARY CELERON	29	98	88	165
10020200W	BALL PIVOT	0.236	6	M8 X 1	7	NO	3 NYLON PADS	LARGE	NONE	29	98	88	165
10020200	BALL PIVOT	0.236	6	M8 X 1	7	NO	3 NYLON PADS	SMALL	NONE	29	98	88	165
1002001W	BALL PIVOT	0.236	6	M8 X 1	7	YES	M19F AND M26M	LARGE	HARD CHROME	29	98	88	165
1002001	BALL PIVOT	0.236	6	M8 X 1	7	YES	M19F AND M26M	SMALL	HARD CHROME	29	98	88	165
10020111W	BALL PIVOT	0.236	6	M8 X 1	7	YES	M19F AND M26M	LARGE	HARD CHROME	29	98	88	165
10020111	BALL PIVOT	0.236	6	M8 X 1	7	YES	M19F AND M26M	SMALL	HARD CHROME	29	98	88	165
10020021W	BALL PIVOT	0.236	6	M8 X 1	7	YES	M19F AND M26M	LARGE	NYLON	29	98	88	165
10020021	BALL PIVOT	0.236	6	M8 X 1	7	YES	M19F AND M26M	SMALL	NYLON	29	98	88	165
10020116W	BALL PIVOT	0.236	6	M8 X 1	7	YES	M30M	LARGE	NYLON	29	98	88	165
10020116	BALL PIVOT	0.236	6	M8 X 1	7	YES	M30M	SMALL	NYLON	29	98	88	165
10020001W	BALL PIVOT	0.236	6	M8 X 1	7	YES	M19F AND M26M	LARGE	ROTARY CELERON	29	98	88	165
10020001	BALL PIVOT	0.236	6	M8 X 1	7	YES	M19F AND M26M	SMALL	ROTARY CELERON	29	98	88	165
10020106W	BALL PIVOT	0.236	6	M8 X 1	7	YES	M19F AND M26M	LARGE	ROTARY CELERON	29	98	88	165
10020106	BALL PIVOT	0.236	6	M8 X 1	7	YES	M19F AND M26M	SMALL	ROTARY CELERON	29	98	88	165



# Hand Drilling, Countersinking & Spotfacing

## RB 356 HP 21 | RBI 356 HP 21 | RB356 HPI 21 - Microstop Cage

Stroke 21mm/0.83"

Cutter Thread M6 x 1 or 1/4"-28

Input shank 7mm/0.28", No 1 Jacobs Taper, 3/8"-24 Female Thread

- Detachable spindle adaptor provides alternative methods for use:
  - In combination with 3 jaw chuck.
  - Mounting direct onto machine spindle using No 1 Jacobs taper or 3/8"-24 Threaded Input Option. This method provides increased level of concentricity, while reducing the length and weight of the drill / tool assembly. This results in better performance, improved machining and less fatigue on the operator.
- Cemented, hardened and ground chrome-nickel steel spindle mounted on 3 needle-bearings and a thrust bearing.
- Microstop depth adjustment (1 scale division = .001").
- Microstop depth setting is held securely in place by locknut with seal. This patented feature allows an easy loosening of the locknut without damage to the drill cage.



MODEL	INPUT STYLE	SHANK		CUTTER THREAD	STROKE MM	VACUUM	MOUNTING BASE STYLE	WINDOW SIZE	NOSE INSERT STYLE	DIAMETER MAX. MM	OVERALL LENGTH MAX MM	OVERALL LENGTH MIN MM	WEIGHT G
		IN	MM										
10040050	JT1 WITH ADAPTOR	0.28	7	1/4"-28	22	NO	NONE/FLAT BASE	SMALL	NONE	27	136	116	300
10040250W	JT1 WITH ADAPTOR	0.28	7	1/4"-28	22	NO	NONE/FLAT BASE NARROW	LARGE	NONE	27	136	116	300
10040250	JT1 WITH ADAPTOR	0.28	7	1/4"-28	22	NO	NONE/FLAT BASE NARROW	SMALL	NONE	27	136	116	300
10040260W	JT1 WITH ADAPTOR	0.28	7	1/4"-28	22	NO	NONE/FLAT BASE NARROW	LARGE	TRIPOD + 3 NYLON STUDS	27	136	116	300
10040260	JT1 WITH ADAPTOR	0.28	7	1/4"-28	22	NO	NONE	SMALL	TRIPOD + 3 NYLON STUDS	27	136	116	300
10040455W	JT1 WITH ADAPTOR	0.28	7	1/4"-28	22	NO	TAPPED M35 FOR NOSE	LARGE	NYLON	27	136	116	300
10040455	JT1 WITH ADAPTOR	0.28	7	1/4"-28	22	NO	TAPPED M35 FOR NOSE	SMALL	NYLON	27	136	116	300
10040555W	JT1 WITH ADAPTOR	0.28	7	1/4"-28	22	NO	NONE	LARGE	TRIPOD + 3 NYLON STUDS	27	136	116	300
10040650W	JT1 WITH ADAPTOR	0.28	7	1/4"-28	22	NO	NONE/FLAT BASE	LARGE	NONE	27	136	116	300

MODEL	INPUT STYLE	SHANK		CUTTER	STROKE	VACUUM	MOUNTING	WINDOW	NOSE INSERT	DIAMETER MAX.	OVERALL LENGTH MAX	OVERALL LENGTH MIN	WEIGHT
		IN	MM	THREAD	MM		BASE STYLE	SIZE	STYLE	MM	MM	MM	G
10040650	JT1 WITH ADAPTOR	0.28	7	1/4"-28	22	NO	NONE/FLAT BASE	SMALL	NONE	27	136	116	300
10040000W	JT1 WITH ADAPTOR	0.28	7	M6 X 1	22	NO	NONE/FLAT BASE	LARGE	NONE	27	136	116	300
10040200W	JT1 WITH ADAPTOR	0.28	7	M6 X 1	22	NO	NONE/FLAT BASE NARROW	LARGE	NONE	27	136	116	300
10040210W	JT1 WITH ADAPTOR	0.28	7	M6 X 1	22	NO	NONE/FLAT BASE NARROW	LARGE	NONE	27	136	116	300
10040210	JT1 WITH ADAPTOR	0.28	7	M6 X 1	22	NO	NONE/FLAT BASE NARROW	SMALL	TRIPOD + 3 NYLON STUDS	27	136	116	300
10040405W	JT1 WITH ADAPTOR	0.28	7	M6 X 1	22	NO	TAPPED M35 FOR NOSE	LARGE	NYLON	27	136	116	300
10040405	JT1 WITH ADAPTOR	0.28	7	M6 X 1	22	NO	TAPPED M35 FOR NOSE	SMALL	NYLON	27	136	116	300
10040505W	JT1 WITH ADAPTOR	0.28	7	M6 X 1	22	NO	NONE	LARGE	TRIPOD + 3 NYLON STUDS	27	136	116	300
10040505	JT1 WITH ADAPTOR	0.28	7	M6 X 1	22	NO	NONE	SMALL	TRIPOD + 3 NYLON STUDS	27	136	116	300
10040600W	JT1 WITH ADAPTOR	0.28	7	M6 X 1	22	NO	NONE/FLAT BASE	LARGE	NONE	27	136	116	300
10040720	3/8"-24	0.28	7	M6 X 1	22	NO	NONE/FLAT BASE	SMALL	NONE	27	136	116	300
10040730	3/8"-24	0.28	7	M6 X 1	22	NO	NONE	SMALL	TRIPOD + 3 NYLON STUDS	27	136	116	300
10040740	3/8"-24	0.28	7	M6 X 1	22	NO	TAPPED M35 FOR NOSE	SMALL	NYLON	27	136	116	300
10040750	3/8"-24	0.28	7	M6 X 1	22	NO	NONE	SMALL	TRIPOD + 3 NYLON STUDS	27	136	116	300
10040760	3/8"-24	0.28	7	M6 X 1	22	NO	NONE/FLAT BASE	SMALL	NONE	27	136	116	300

# Hand Drilling, Countersinking & Spotfacing

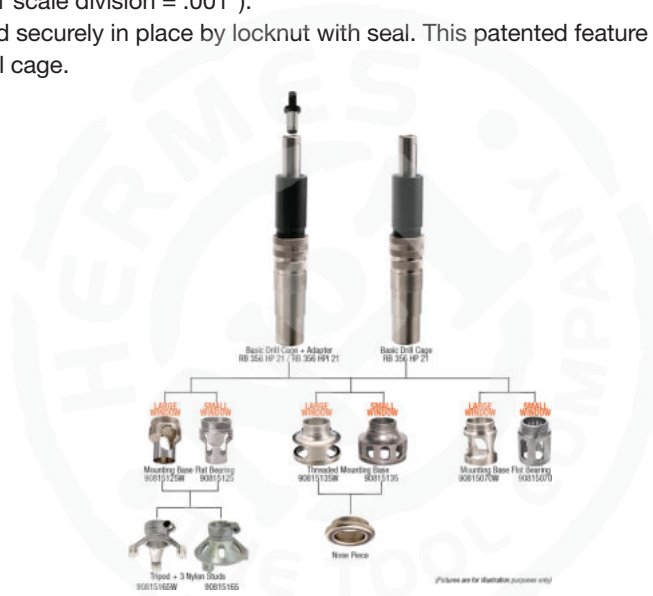
## RB 356 HP 38 | RBI 356 HP 38 | RB 356 HPI 38 - Microstop Cage

Stroke 38mm/1.49"

Cutter Thread M6 x 1 or 1/4"-28

Input shank 7mm/0.28", No 1 Jacobs Taper, 3/8"-24 Female Thread

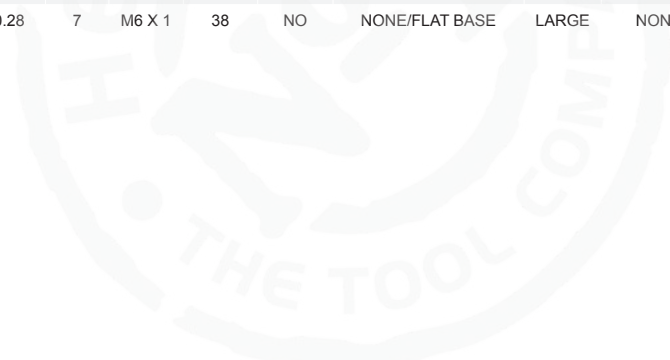
- Detachable spindle adaptor provides alternative methods for use:
  - In combination with 3 jaw chuck.
  - Mounting direct onto machine spindle using No 1 Jacobs taper or 3/8"-24 Threaded Input Option. This method provides increased level of concentricity, while reducing the length and weight of the drill / tool assembly. This results in better performance, improved machining and less fatigue on the operator.
- Cemented, hardened and ground chrome-nickel steel spindle mounted on 3 needle-bearings and a thrust bearing.
- Microstop depth adjustment (1 scale division = .001").
- Microstop depth setting is held securely in place by locknut with seal. This patented feature allows an easy loosening of the locknut without damage to the drill cage.



MODEL	INPUT STYLE	SHANK		CUTTER THREAD	STROKE MM	VACUUM	MOUNTING BASE STYLE	WINDOW SIZE	NOSE INSERT STYLE	DIAMETER MAX. MM	OVERALL LENGTH MAX MM	OVERALL LENGTH MIN MM	WEIGHT G
		IN	MM										
10045050W	JT1 WITH ADAPTOR	0.28	7	1/4"-28		NO	NONE/FLAT BASE	LARGE	NONE	27	183	168	375
10045050	JT1 WITH ADAPTOR	0.28	7	1/4"-28		NO	NONE/FLAT BASE	SMALL	NONE	27	183	168	375
10045260W	JT1 WITH ADAPTOR	0.28	7	1/4"-28		NO	NONE/FLAT BASE NARROW	LARGE	TRIPOD + 3 NYLON STUDS	27	183	168	375
10045455	JT1 WITH ADAPTOR	0.28	7	1/4"-28		NO	TAPPED M35 FOR NOSE	SMALL	NYLON	27	183	168	375
10045555	JT1 WITH ADAPTOR	0.28	7	1/4"-28		NO	NONE/FLAT BASE	SMALL	TRIPOD + 3 NYLON STUDS	27	183	168	375
10045650W	JT1 WITH ADAPTOR	0.28	7	1/4"-28		NO	NONE/FLAT BASE	LARGE	NONE	27	183	168	375
10045650	JT1 WITH ADAPTOR	0.28	7	1/4"-28		NO	NONE/FLAT BASE	SMALL	NONE	27	183	168	375
10045700W	3/8"-24			M6 X 1	38	NO	NONE/FLAT BASE	LARGE	NONE	27	183	168	375
10045720W	3/8"-24			M6 X 1	38	NO	NONE/FLAT BASE NARROW	LARGE	NONE	27	183	168	375
10045720	3/8"-24			M6 X 1	38	NO	NONE/FLAT BASE NARROW	SMALL	NONE	27	183	168	375

# Hand Drilling, Countersinking & Spotfacing

MODEL	INPUT STYLE	SHANK		CUTTER	STROKE	VACUUM	MOUNTING	WINDOW	NOSE INSERT	DIAMETER MAX.	OVERALL LENGTH MAX	OVERALL LENGTH MIN	WEIGHT
		IN	MM	THREAD	MM		BASE STYLE	SIZE	STYLE	MM	MM	MM	G
10045730W	3/8"-24			M6 X 1	38	NO	NONE/FLAT BASE NARROW	LARGE	TRIPOD + 3 NYLON STUDS	27	183	168	375
10045730	3/8"-24			M6 X 1	38	NO	NONE/FLAT BASE NARROW	SMALL	TRIPOD + 3 NYLON STUDS	27	183	168	375
10045740W	3/8"-24			M6 X 1	38	NO	TAPPED M35 FOR NOSE	LARGE	NYLON	27	183	168	375
10045740	3/8"-24			M6 X 1	38	NO	TAPPED M35 FOR NOSE	SMALL	NYLON	27	183	168	375
10045750W	3/8"-24			M6 X 1	38	NO	NONE/FLAT BASE	LARGE	TRIPOD + 3 NYLON STUDS	27	183	168	375
10045750	3/8"-24			M6 X 1	38	NO	NONE/FLAT BASE	SMALL	TRIPOD + 3 NYLON STUDS	27	183	168	375
10045760W	3/8"-24			M6 X 1	38	NO	NONE/FLAT BASE	LARGE	NONE	27	183	168	375
10045760	3/8"-24			M6 X 1	38	NO	NONE/FLAT BASE	SMALL	NONE	27	183	168	375
10045200W	JT1 WITH ADAPTOR	0.28	7	M6 X 1	38	NO	NONE/FLAT BASE	LARGE	NONE	27	183	168	375
10045405W	JT1 WITH ADAPTOR	0.28	7	M6 X 1	38	NO	TAPPED M35 FOR NOSE	LARGE	NYLON	27	183	168	375
10045405	JT1 WITH ADAPTOR	0.28	7	M6 X 1	38	NO	TAPPED M35 FOR NOSE	SMALL	NYLON	27	183	168	375
10045505	JT1 WITH ADAPTOR	0.28	7	M6 X 1	38	NO	NONE/FLAT BASE	SMALL	TRIPOD + 3 NYLON STUDS	27	183	168	375
10045600W	JT1 WITH ADAPTOR	0.28	7	M6 X 1	38	NO	NONE/FLAT BASE	LARGE	NONE	27	183	168	375



# Hand Drilling, Countersinking & Spotfacing

## RB 356HP58 - Microstop Cage

Stroke 58mm/2.3"

Cutter Thread M10 x 1 and 7/16"-20

- Detachable spindle adaptor No 1 Jacobs Taper provides alternative methods for use:
  - In combination with 3 jaw chuck with 10mm/0.39" shank input.
  - Mounting direct onto machine spindle using No 1 Jacobs Taper. This method provides increased level of concentricity, while reducing the length and weight of the drill / tool assembly. This results in better performance, improved machining and less fatigue on the operator.
- Cemented, hardened and ground chrome-nickel steel spindle mounted on 3 needle-bearings and a thrust bearing.
- Microstop depth adjustment (1 scale division = .001").
- Microstop depth setting is held securely in place by locknut with seal. This patented feature allows an easy loosening of the locknut without damage to the drill cage.



MODEL	INPUT STYLE	SHANK		CUTTER THREAD	STROKE MM	VACUUM	MOUNTING BASE STYLE	WINDOW SIZE	DIAMETER MAX. MM	OVERALL LENGTH MAX MM	OVERALL LENGTH MIN MM	WEIGHT G
		IN	MM									
10050050W	JT1 WITH ADAPTOR	0.276	7	7/16"- 20 F	58	NO	FLAT BEARING	LARGE	38	292	264	970
10050050	JT1 WITH ADAPTOR	0.276	7	7/16"- 20 F	58	NO	FLAT BEARING	SMALL	38	292	264	970
10050000W	JT1 WITH ADAPTOR	0.276	7	M10 X 1	58	NO	FLAT BEARING	LARGE	38	292	264	970
10050000	JT1 WITH ADAPTOR	0.276	7	M10 X 1	58	NO	FLAT BEARING	SMALL	38	292	264	970

## RB 406 - Microstop Cage

Stroke 14mm/0.55"

Cutter Thread M10 x 1

- This drill cage has been designed for use with cutter of 7/8" to 1.1/2" dia.
- Different mounting bases available
- Detachable spindle adaptor Jacobs No 1 taper provides alternative methods for use :
  - - In combination with 3 jaw chuck using 10mm/0.39" shank.
  - - Mounting direct onto machine spindle using Jacobs No 1 taper. This method provides increased level of concentricity, while reducing the length and weight of the drill / tool assembly. This results in better performance, improved machining and less fatigue on the operator.
- Cemented, hardened and ground chrome-nickel steel spindle mounted on 3 needle-bearings and a thrust bearing.
- Microstop depth adjustment (1 scale division = .001").
- Microstop depth setting is held securely in place by locknut with seal. This patented feature allows an easy loosening of the locknut without damage to the drill cage.



MODEL	SHANK		CUTTER THREAD	STROKE MM	VACUUM	MOUNTING BASE STYLE	WINDOW SIZE	DIAMETER MAX. MM	OVERALL LENGTH MAX MM	OVERALL LENGTH MIN MM	WEIGHT G
	IN	MM									
10030105W	0.39	10	M10 X 1	14	NO	NONE/FLAT BASE	LARGE	36	163	136	545
10030010W	0.39	10	M10 X 1	14	NO	NONE/FLAT BASE	LARGE	36	163	136	545
10030010	0.39	10	M10 X 1	14	NO	NONE/FLAT BASE	SMALL	36	163	136	545
10030105	0.39	10	M10 X 1	14	NO	NONE/FLAT BASE	SMALL	36	163	136	545

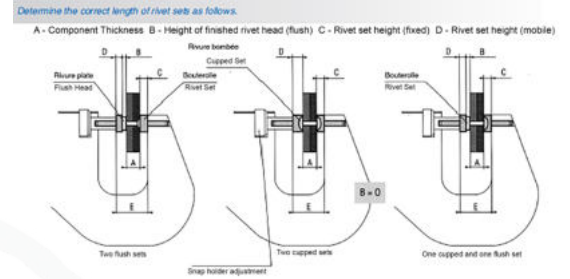
# Riveting

## RB41/RB42 Series - Compression Riveter - C-Yoke Type

Up to 3/16" | 4.8mm Capacity Al rivets



- Smooth controlled throttle movement for fast and slow approach.
- Equipped with a safety throttle lever.
- Standard C Yoke Jaws - Special Versions Available
- The operator can adjust exactly the position of the rivet by adjusting the snap holder (stroke 3mm/0.12"). This allows the operator to use the same rivet set for different thicknesses.
- Different force/capacity options to suit the specific riveting requirements
- Select Rivet Set from:-
- RB 400 for countersink rivets
- RB 401 for universal head type rivets
- RB 402 for special reduced universal head rivets
- To develop maximum power the riveter must squeeze the rivet near to the end of the riveting stroke. Therefore, the combined length of the two rivets sets must be correct.
- Determine the correct length of rivet sets as shown



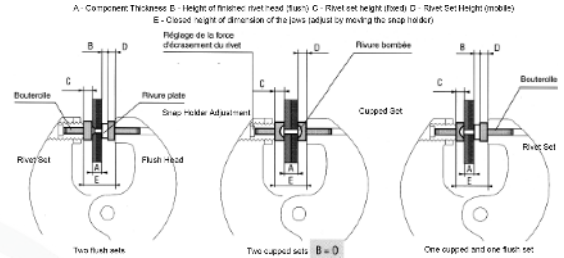
MODEL	RIVET SQUEEZER SET SHANK DIAMETER	CAPACITY ALUMINUM RIVETS	MAXIMUM FORCE	REACH	GAP	MAX TRAVEL	WEIGHT	LENGTH
		MM   IN	T   LB	MM   IN	MM   IN	MM   IN	LB	IN
60103010	STD DIAMETER 5 MM	3.6MM   9/64IN	1.4T   3090 LBS	50 MM   2.00 IN	36   1.41	35   1.38	4.8	10.8
60103110	STD DIAMETER 3/16"	3.6MM   9/64IN	1.4T   3090 LBS	50 MM   2.00 IN	36   1.41	35   1.38	4.8	10.8
60102010	STD DIAMETER 5 MM	4.8MM   3/16IN	2.2T   4850 LBS	50 MM   2.00 IN	35   1.38	34   1.34	6.7	13.4
60102110	STD DIAMETER 3/16"	4.8MM   3/16IN	2.2T   4850 LBS	50 MM   2.00 IN	35   1.38	34   1.34	6.7	13.4

## RB43/RB40/RB44 Series - Compression Riveter- Alligator Jaw Type

Up to 7/32" | 5.6mm Capacity Al rivets



- Smooth controlled throttle movement for fast and slow approach.
- Equipped with a safety throttle lever.
- Standard Alligator Jaws - Special Versions Available
- The operator can adjust exactly the position of the rivet by adjusting the snap holder (stroke 5 mm/0.12"). This allows the operator to use the same rivet set for different thicknesses.
- Different force/capacity options to suit the specific riveting requirements
- Select Rivet Set from:-
- RB 400 for countersink rivets
- RB 401 for universal head type rivets
- RB 402 for special reduced universal head rivets
- To develop maximum power the riveter must squeeze the rivet near to the end of the riveting stroke. Therefore, the combined length of the two rivets sets must be correct.
- Determine the correct length of rivet sets as shown.



MODEL	RIVET SQUEEZER SET SHANK DIAMETER	CAPACITY ALUMINUM RIVETS	MAXIMUM FORCE	REACH	GAP	MAX TRAVEL	WEIGHT	LENGTH
		MM   IN	T   LB	MM   IN	MM   IN	MM   IN	LB	IN
60104010	STD DIAMETER 5 MM	3.6MM   9/64IN	1.4T   3090 LBS	60 MM   2.36 IN	55 MM   2.16 IN	49 MM   1.93 IN	4.59 LB	9.7 IN
60104110	STD DIAMETER 3/16"	3.6MM   9/64IN	1.4T   3090 LBS	60 MM   2.36 IN	55 MM   2.16 IN	49 MM   1.93 IN	4.59 LB	9.7 IN
60101020	STD DIAMETER 5 MM	3.6MM   9/64IN	1.8T   3970 LBS	85 MM   3.35 IN	55 MM   2.16 IN	49 MM   1.93 IN	6.8 LB	15.4 IN
60101120	STD DIAMETER 3/16"	3.6MM   9/64IN	1.8T   3970 LBS	85MM   3.35 IN	55 MM   2.16 IN	49 MM   1.93 IN	6.8 LB	15.4 IN
60101010	STD DIAMETER 5 MM	4.8MM   3/16IN	2.6T   5730 LBS	60 MM   2.36 IN	55 MM   2.16 IN	49 MM   1.93 IN	6.7 LB	14.4 IN
60101110	STD DIAMETER 3/16"	4.8MM   3/16IN	2.6T   5730 LBS	60 MM   2.36 IN	55 MM   2.16 IN	49 MM   1.93 IN	6.7 LB	14.4 IN
60110010	STD DIAMETER 5 MM	5.6MM   7/32IN	3T   6610 LBS	58 MM   2.28 IN	35 MM   1.38 IN	45 MM   1.77 IN	11.2 LB	16.8 IN



## Riveting

### RB46 Series - Pressure Riveting Unit for C Yoke or Alligator Jaws

Up to 5/16" / 8mm Capacity Al rivets

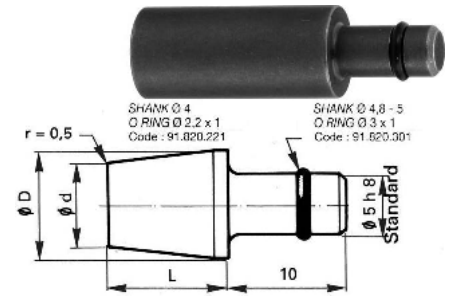


- The RB 46 pressure riveting assembly comprises a hydropneumatic generator, a hydraulic cylinder and a regulator for setting the force (max. 7 tonnes). It uses various standard and special yokes to form solid rivets made from various materials.
- It is easy to use and adjust, making it suitable for all riveting operations on assembly rigs and for maintenance repairs.
- The work cycle is performed automatically after initiation by the operator.
  - quick feed at low pressure until rivet contact
  - high pressure squeezing at preset forces
  - automatic return.
- The principle of this riveting assembly is based on automatic control of the squeezing force ; no additional adjustment is required to squeeze rivets of the same type, diameter and material on assemblies of varying thicknesses.
- An adjusting nut can be used to reduce the return stroke to shorten the riveting time.

MODEL	LIGHT ALLOY	CAPACITY MONEL	HOSE LENGTH	START CONTROL	MAX CYLINDER STROKE	MAXIMUM FORCE	MINIMUM FORCE	JAWS
	MM   IN	MM   IN	M   FT		MM   IN	T   LB	T   LB	
60203006	8   5/16	6.35   1/4	1.80   5.9	MANUAL CONTROL ON CYLINDER	50   2	7T   15400 LBS	0.4T   880 LBS	CUSTOM ALLIGATOR OR C YOKE JAWS TO SUIT APPLICATION
60203016	8   5/16	6.35   1/4	1.80   5.9	REMOTE PEDAL CONTROL	50   2	7T   15400 LBS	0.4T   880 LBS	CUSTOM ALLIGATOR OR C YOKE JAWS TO SUIT APPLICATION
60203106	8   5/16	6.35   1/4	3   9.8	MANUAL CONTROL ON CYLINDER	50   2	7T   15400 LBS	0.4T   880 LBS	CUSTOM ALLIGATOR OR C YOKE JAWS TO SUIT APPLICATION
60203116	8   5/16	6.35   1/4	3   9.8	REMOTE PEDAL CONTROL	50   2	7T   15400 LBS	0.4T   880 LBS	CUSTOM ALLIGATOR OR C YOKE JAWS TO SUIT APPLICATION

## RB400 - Rivet Set - Countersunk Rivets

- For Countersink Rivets



MODEL	SHANK	RIVET DIAMETER	LENGTH		DIAMETER MIN		DIAMETER MAX		USED ON
			MM	IN	MM	IN	MM	IN	
60701005	4H8	1.6 MM   2.4 MM   1/16 IN   3/32 IN	4	0.157	7	0.276	9	0.354	•RB 40-13-30 HAND RIVETER
60701020	4H8	1.6 MM   2.4 MM   1/16 IN   3/32 IN	7	0.276	7	0.276	9	0.354	•RB 40-13-30 HAND RIVETER
60701205	4H8	3.2 MM   3.6 MM   1/16 IN   3/32 IN	4	0.157	9	0.354	9	0.354	•RB 40-13-30 HAND RIVETER
60701220	4H8	3.2 MM   3.6 MM   1/16 IN   3/32 IN	7	0.276	9	0.354	9	0.354	•RB 40-13-30 HAND RIVETER
60703005	5H8	1.6 MM   2.4 MM   1/16 IN   3/32 IN	4	0.157	7	0.276	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703020	5H8	1.6 MM   2.4 MM   1/16 IN   3/32 IN	7	0.276	7	0.276	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703040	5H8	1.6 MM   2.4 MM   1/16 IN   3/32 IN	10	0.394	7	0.276	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703055	5H8	1.6 MM   2.4 MM   1/16 IN   3/32 IN	12.5	0.492	7	0.276	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703075	5H8	1.6 MM   2.4 MM   1/16 IN   3/32 IN	16	0.63	7	0.276	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703095	5H8	1.6 MM   2.4 MM   1/16 IN   3/32 IN	20	0.787	7	0.276	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703220	5H8	3.2 MM   3.6 MM   1/16 IN   3/32 IN	7	0.276	9	0.354	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703240	5H8	3.2 MM   3.6 MM   1/16 IN   3/32 IN	10	0.394	9	0.354	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703255	5H8	3.2 MM   3.6 MM   1/16 IN   3/32 IN	12.5	0.492	9	0.354	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703275	5H8	3.2 MM   3.6 MM   1/16 IN   3/32 IN	16	0.63	9	0.354	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703295	5H8	3.2 MM   3.6 MM   1/16 IN   3/32 IN	20	0.787	9	0.354	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703405	5H8	4 MM   5/32 IN	4	0.157	10	0.394	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703420	5H8	4 MM   5/32 IN	7	0.276	10	0.394	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703440	5H8	4 MM   5/32 IN	10	0.394	10	0.394	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703455	5H8	4 MM   5/32 IN	12.5	0.492	10	0.394	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703475	5H8	4 MM   5/32 IN	16	0.63	10	0.394	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703495	5H8	4 MM   5/32 IN	20	0.787	10	0.394	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703505	5H8	4.8 MM   3/16 IN	4	0.157	12	0.472	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703520	5H8	4.8 MM   3/16 IN	7	0.276	12	0.472	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703540	5H8	4.8 MM   3/16 IN	10	0.394	12	0.472	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703555	5H8	4.8 MM   3/16 IN	12.5	0.492	12	0.472	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703575	5H8	4.8 MM   3/16 IN	16	0.63	12	0.472	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703595	5H8	4.8 MM   3/16 IN	20	0.787	12	0.472	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER

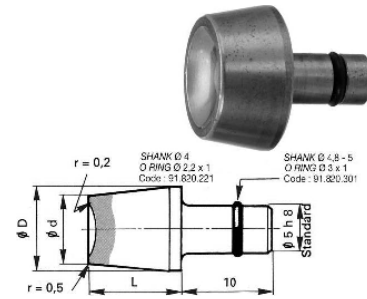
# Riveting

MODEL	SHANK	RIVET DIAMETER	LENGTH		DIAMETER MIN		DIAMETER MAX		USED ON
			MM	IN	MM	IN	MM	IN	
60703605	5H8	5.6 MM   6.4 MM   7/32 IN   1/4 IN	4	0.157	16	0.63	16	0.63	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703620	5H8	5.6 MM   6.4 MM   7/32 IN   1/4 IN	7	0.276	16	0.63	16	0.63	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703640	5H8	5.6 MM   6.4 MM   7/32 IN   1/4 IN	10	0.394	16	0.63	16	0.63	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703655	5H8	5.6 MM   6.4 MM   7/32 IN   1/4 IN	12.5	0.492	16	0.63	16	0.63	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703675	5H8	5.6 MM   6.4 MM   7/32 IN   1/4 IN	16	0.63	16	0.63	16	0.63	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60703695	5H8	5.6 MM   6.4 MM   7/32 IN   1/4 IN	20	0.787	16	0.63	16	0.63	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER



## RB401 - Rivet Set - Universal Head Type Rivets

- For Universal Head Type Rivets



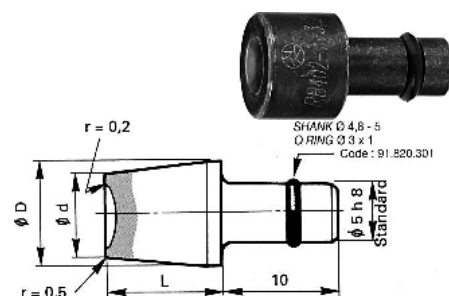
MODEL	SHANK	RIVET DIAMETER	LENGTH		DIAMETER MIN		DIAMETER MAX		USED ON
			MM	IN	MM	IN	MM	IN	
60711105	4H8	2.4 MM   3/32 IN	4	0.157	7	0.276	9	0.354	•RB 40-13-30 HAND RIVETER
60711120	4H8	2.4 MM   3/32 IN	7	0.276	7	0.276	9	0.354	•RB 40-13-30 HAND RIVETER
60711205	4H8	2.4 MM   3/32 IN	4	0.157	9	0.354	9	0.354	•RB 40-13-30 HAND RIVETER
60711220	4H8	2.4 MM   3/32 IN	7	0.276	9	0.354	9	0.354	•RB 40-13-30 HAND RIVETER
60713105	5H8	2.4 MM   3/32 IN	4	0.157	7	0.276	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713120	5H8	2.4 MM   3/32 IN	7	0.276	7	0.276	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713140	5H8	2.4 MM   3/32 IN	10	0.394	7	0.276	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713155	5H8	2.4 MM   3/32 IN	12.5	0.492	7	0.276	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713175	5H8	2.4 MM   3/32 IN	16	0.63	7	0.276	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713195	5H8	2.4 MM   3/32 IN	20	0.787	7	0.276	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713205	5H8	3.2 MM   1/8 IN	4	0.157	9	0.354	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713220	5H8	3.2 MM   1/8 IN	7	0.276	9	0.354	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713240	5H8	3.2 MM   1/8 IN	10	0.394	9	0.354	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713255	5H8	3.2 MM   1/8 IN	12.5	0.492	9	0.354	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713275	5H8	3.2 MM   1/8 IN	16	0.63	9	0.354	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713295	5H8	3.2 MM   1/8 IN	20	0.787	9	0.354	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713405	5H8	4 MM   5/32 IN	4	0.157	10	0.394	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713420	5H8	4 MM   5/32 IN	7	0.276	10	0.394	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713440	5H8	4 MM   5/32 IN	10	0.394	10	0.394	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713455	5H8	4 MM   5/32 IN	12.5	0.492	10	0.394	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713475	5H8	4 MM   5/32 IN	16	0.63	10	0.394	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713495	5H8	4 MM   5/32 IN	20	0.787	10	0.394	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713505	5H8	4.8 MM   3/26 IN	4	0.157	12	0.472	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713520	5H8	4.8 MM   3/26 IN	7	0.276	12	0.472	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713540	5H8	4.8 MM   3/26 IN	10	0.394	12	0.472	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713555	5H8	4.8 MM   3/26 IN	12.5	0.492	12	0.472	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713575	5H8	4.8 MM   3/26 IN	16	0.63	12	0.472	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER

# Riveting

MODEL	SHANK	RIVET DIAMETER	LENGTH		DIAMETER MIN		DIAMETER MAX		USED ON
			MM	IN	MM	IN	MM	IN	
60713595	5H8	4.8 MM   3/26 IN	20	0.787	12	0.472	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713605	5H8	5.6 MM   7/32 IN	4	0.157	14	0.551	16	0.63	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713620	5H8	5.6 MM   7/32 IN	7	0.276	14	0.551	16	0.63	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713640	5H8	5.6 MM   7/32 IN	10	0.394	14	0.551	16	0.63	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713655	5H8	5.6 MM   7/32 IN	12.5	0.492	14	0.551	16	0.63	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713675	5H8	5.6 MM   7/32 IN	16	0.63	14	0.551	16	0.63	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713695	5H8	5.6 MM   7/32 IN	20	0.787	14	0.551	16	0.63	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713705	5H8	6.4 MM   1/4 IN	4	0.157	16	0.63	16	0.63	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713720	5H8	6.4 MM   1/4 IN	7	0.276	16	0.63	16	0.63	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713740	5H8	6.4 MM   1/4 IN	10	0.394	16	0.63	16	0.63	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713755	5H8	6.4 MM   1/4 IN	12.5	0.492	16	0.63	16	0.63	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713775	5H8	6.4 MM   1/4 IN	16	0.63	16	0.63	16	0.63	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60713795	5H8	6.4 MM   1/4 IN	20	0.787	16	0.63	16	0.63	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER



## RB402 - Rivet Set - Special Reduced Universal Head Rivets



- For Special Reduced Universal Head Rivets

MODEL	SHANK	RIVET DIAMETER	LENGTH		DIAMETER MIN		DIAMETER MAX		USED ON
			MM	IN	MM	IN	MM	IN	
60723105	5H8	2.4 MM   3/32 IN	4	0.157	7	0.276	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723120	5H8	2.4 MM   3/32 IN	7	0.276	7	0.276	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723140	5H8	2.4 MM   3/32 IN	10	0.394	7	0.276	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723155	5H8	2.4 MM   3/32 IN	12.5	0.492	7	0.276	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723175	5H8	2.4 MM   3/32 IN	16	0.63	7	0.276	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723195	5H8	2.4 MM   3/32 IN	20	0.787	7	0.276	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723205	5H8	3.2 MM   1/8 IN	4	0.157	9	0.354	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723220	5H8	3.2 MM   1/8 IN	7	0.276	9	0.354	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723240	5H8	3.2 MM   1/8 IN	10	0.394	9	0.354	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723255	5H8	3.2 MM   1/8 IN	12.5	0.492	9	0.354	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723275	5H8	3.2 MM   1/8 IN	16	0.63	9	0.354	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723295	5H8	3.2 MM   1/8 IN	20	0.787	9	0.354	9	0.354	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723405	5H8	4 MM   5/32 IN	4	0.157	10	0.394	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723420	5H8	4 MM   5/32 IN	7	0.276	10	0.394	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723440	5H8	4 MM   5/32 IN	10	0.394	10	0.394	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723455	5H8	4 MM   5/32 IN	12.5	0.492	10	0.394	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723475	5H8	4 MM   5/32 IN	16	0.63	10	0.394	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723495	5H8	4 MM   5/32 IN	20	0.787	10	0.394	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723505	5H8	4.8 MM   3/32 IN	4	0.157	12	0.472	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723520	5H8	4.8 MM   3/32 IN	7	0.276	12	0.472	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723540	5H8	4.8 MM   3/32 IN	10	0.394	12	0.472	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723555	5H8	4.8 MM   3/32 IN	12.5	0.492	12	0.472	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723575	5H8	4.8 MM   3/32 IN	16	0.63	12	0.472	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723595	5H8	4.8 MM   3/32 IN	20	0.787	12	0.472	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723605	5H8	5.6 MM   7/32 IN	4	0.157	14	0.551	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER

## Riveting

MODEL	SHANK	RIVET DIAMETER	LENGTH		DIAMETER MIN		DIAMETER MAX		USED ON
			MM	IN	MM	IN	MM	IN	
60723620	5H8	5.6 MM   7/32 IN	7	0.276	14	0.551	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723640	5H8	5.6 MM   7/32 IN	10	0.394	14	0.551	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723655	5H8	5.6 MM   7/32 IN	12.5	0.492	14	0.551	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723675	5H8	5.6 MM   7/32 IN	16	0.63	14	0.551	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER
60723695	5H8	5.6 MM   7/32 IN	20	0.787	14	0.551	14	0.551	•RB 41-17-70 HAND RIVETER •ALL COMPRESSION RIVETERS RB41-17-70 HAND RIVETER

## Rivet Cutting Pliers

- This very simple hand cutting tool includes a microstop adjustment for a clean, precise cut of all aluminium rivets.



MODEL	MINIMUM UNDERHEAD	RIVET	TOLERANCE OVER
	CUTTING LENGTH	DIAMETER	LENGTH
60001000	5 MM - 0.197" DIA	2 MM   2.5 MM   3 MM   3.5 MM   4 MM   5 MM   6 MM	0,5 MM - 0.02" DIA
RC-60001005	5 MM - 0.197" DIA	1/16 IN   3/32 IN   1/8 IN   9/64 IN   5/32 IN   3/16 IN   7/32 IN	0,5 MM - 0.02" DIA

## Ring Cutters

Easy removal of Rivet Rings 4.00 - 8.00mm



- Simple, rugged and handy, this tool has been designed to afford the easy removal of rivet rings (Huck, LGP type or others) without risk of damage to the hole or skin.
- Strong mechanical leverage enables clean removal of rings into two half shells.
- Quick change levers enable the ring cutter to be used in either « in line » or « right angle » position.
- Reduced dimension of the working part.
- No adjustment or setting required for use which is a considerable time-saver for rivet ring removal.
- Removable, quick change anvils.
- Each tool is supplied with 1 set of anvils for one rivet ring diameter.

MODEL	FASTENER SIZE
60004000	4 MM   0.1579 IN
60004017	4.16 MM   0.1638 IN
60004001	4.8 MM   0.188 IN
60004005	5 MM   0.1969 IN
60004008	5.6 MM   0.219 IN
60004010	6 MM   0.2362 IN
60004016	6.35 MM   0.250 IN
60004015	7.94 MM   0.313 IN

## E & F Series - Rivet Hammer

Up to 1/4" Rivets



- For driving 1/8"-1/4" (3-6mm) rivets
- Standard beehive retainer
- Built-in air regulator controls power output
- Spool valve for precise speed control

MODEL	RETAINER TYPE	BORE	BLOWS PER MINUTE	WEIGHT	LENGTH	AIR INLET SIZE
		IN		LB	IN	IN
E4-2335	OPEN	0.50	1600	2.6	8.4	1/4
E4-2336	OPEN	0.50	1400	2.9	9.4	1/4
F4-PT-RT-B	BEEHIVE SPRING	0.56	1700	3.31	8.7	1/4

All tools performance rated @ 90 psi / 620 kPa air pressure. Minimum Hose I.D.: 1/4 in / 6.4 mm Standard Equipment: Operating instructions & service manual E4-2335 and E5-2336 have minimum order quantities



# Riveting

## 14CF / 14CN Series - Rivet Shaver

14CF 0.4hp / 0.3kW 29000rpm

14CN 0.9hp / 0.75kW 20000rpm



- 0.00025 or 0.0005 Cutter Adjustment
- Optional Adjustment Guard 02-8150 or Stabilizer 02-8120 Sold Separately
- These rivet shavers accept skirts for cutters up to 3/4" in diameter - sold separately

MODEL	DESCRIPTION	SPEED	CUTTER ADJUSTMENT	WEIGHT		LENGTH	
		R/MIN	IN	LB	KG	IN	MM
14CFS60-96	RIVET SHAVER 0.4HP	29000 R/MIN	0.0005 CUTTER ADJUSTMENT	2.20	1	8.2	208.3
14CFS60-98	RIVET SHAVER 0.4HP	29000 R/MIN	0.00025 CUTTER ADJUSTMENT	2.20	1	8.2	208.3
14CNL60-96	RIVET SHAVER 0.9HP	20000 R/MIN	0.0005 CUTTER ADJUSTMENT	4.41	2	8.9	226.1

All tools performance rated @ 90psi / 620 kPa air pressure.  
Minimum Hose I.D.: 5/16in / 7.9mmmm

## Thickness Gauge

0 to 1/4" (30mm)

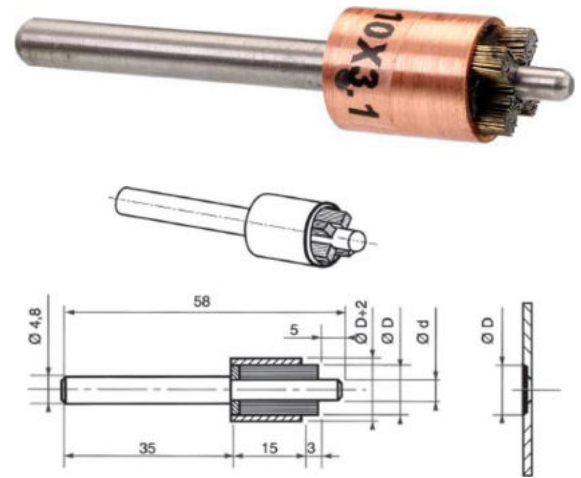


- Simple and handy, equipped with a flexible, highly-efficient safety locking device, this inspection tool is designed for checking all thicknesses from 0 to 1 1/4" (30 mm).
- The accurate scale allows reading to 0.004" (0,1 mm).

MODEL	DESCRIPTION
60901000	RB 2010 - THICKNESS GAUGE

## Wire Brush

- Used for cleaning paint, dirt, rust from around rivet or bolt holes. By placing the pilot in the rivet hole the cleaning process is secure. Assures a positive electrical contact to eliminate static electricity buildup.
- Wire diameter 0.008"
- Solid item, with a steel shank + pilot, nylon body in a copper sleeve, 4 steel brushes set at 90°.
- Backfacing wire brushes, code 32115... and alternative diameters may be manufactured on request



MODEL	DESCRIPTION	DIAMETER	
		SMALL D	LARGE D
32110102	WIRE BRUSH FOR RIVET HOLES	2.40	10
32110103	WIRE BRUSH FOR RIVET HOLES	2.40	12
32110069	WIRE BRUSH FOR RIVET HOLES	2.50	10
32110097	WIRE BRUSH FOR RIVET HOLES	3.00	12
32110060	WIRE BRUSH FOR RIVET HOLES	3.00	13
32110070	WIRE BRUSH FOR RIVET HOLES	3.10	10
32110072	WIRE BRUSH FOR RIVET HOLES	3.10	12
32110067	WIRE BRUSH FOR RIVET HOLES	3.20	8
32110071	WIRE BRUSH FOR RIVET HOLES	3.50	10
32110073	WIRE BRUSH FOR RIVET HOLES	3.50	12
32110065	WIRE BRUSH FOR RIVET HOLES	4.00	10
32110055	WIRE BRUSH FOR RIVET HOLES	4.00	12
32110063	WIRE BRUSH FOR RIVET HOLES	4.00	14
32110075	WIRE BRUSH FOR RIVET HOLES	4.10	16
32110074	WIRE BRUSH FOR RIVET HOLES	4.80	12
32110057	WIRE BRUSH FOR RIVET HOLES	4.80	13
32110064	WIRE BRUSH FOR RIVET HOLES	4.80	14
32110076	WIRE BRUSH FOR RIVET HOLES	4.80	16
32110062	WIRE BRUSH FOR RIVET HOLES	4.80	18
32110078	WIRE BRUSH FOR RIVET HOLES	5.00	10
32110079	WIRE BRUSH FOR RIVET HOLES	5.00	12
32110056	WIRE BRUSH FOR RIVET HOLES	5.00	13
32110082	WIRE BRUSH FOR RIVET HOLES	5.00	14
32110119	WIRE BRUSH FOR RIVET HOLES	5.00	16
32110077	WIRE BRUSH FOR RIVET HOLES	5.00	20
32110081	WIRE BRUSH FOR RIVET HOLES	5.20	14
32110080	WIRE BRUSH FOR RIVET HOLES	6.00	14
32110098	WIRE BRUSH FOR RIVET HOLES	6.00	16
32110068	WIRE BRUSH FOR RIVET HOLES	6.30	14
32110058	WIRE BRUSH FOR RIVET HOLES	6.30	16
32110059	WIRE BRUSH FOR RIVET HOLES	7.50	14
32110061	WIRE BRUSH FOR RIVET HOLES	7.50	23
32110066	WIRE BRUSH FOR RIVET HOLES	7.80	20
32110083	WIRE BRUSH FOR RIVET HOLES	9.30	21

# Our commitment to service spans the globe



## What is

Cleco is known for producing great tools that your manufacturing facility depends on to keep your line running. Cleco stands behind our products and our partners by supporting your investment with on-going product service and support programs through Cleco Care.

Cleco Care provides a wide range of continued technical support and product expertise around the globe. Our Cleco Care Global Service Centers are committed to providing data-driven customer solutions to reduce total cost of ownership and down-time on your line. We offer a multitude of full-service Cleco Care programs that cover three major components of tool ownership: **Restore, Parts, and Support.**

Our commitment to our customers starts with our warranties and extends to a range of services that minimize downtime and errors at your assembly plant.

- Repairs are performed with only OEM certified parts and the latest test equipment.
- Preventative maintenance programs tailored for your situation.
- Verification and calibration services.
- Upgrade or retrofitting kits to modernize discontinued or outdated equipment.

Rely on our Cleco Care program for the parts you need, as soon as you need them. Our logistic partners offer world-wide shipments for spare parts and consumables. Our replacement parts program keeps you up and running when you need it most.

- OEM parts that meet our rigorous quality standards around the world.
- Cleco Care’s data-driven analytics system predicts wear patterns before they can become problems so we can get you spare parts, fast.



Cleco Care includes a revitalized focus on support, enabling our partners through comprehensive installation and start-up services, specialized technical support, field servicing and top-quality training programs.

- Cleco Care covers every step of setup, programming, parameter-setting, operational support, and calibration.
- Our basic training classes cover all our products, and we offer specially designed trainings to integrate our tools with your software.

## Service Centers



### North America

**Detroit, Michigan**  
2630 Superior Court  
Auburn 48236  
United States  
1 (248) 391-3700

**Lexington, South Carolina**  
670 Industrial Drive  
Lexington 29072  
United States  
1 (800) 845-5629  
1 (803) 951-7510

**Queretaro, Mexico**  
Vialidad Del Pueblito 103  
Parque Industrial  
Querétaro, QRO 76220  
Mexico  
52 (442) 211 3800

### South America

**Sao Paulo, Brazil**  
Avenida Liberdade 4055  
Iporanga-Sorocaba 18087-170  
Brazil  
55 15 3238 3820

### Europe

**Westhausen, Germany**  
IndustriestraBe 1  
73463 Westhausen  
Germany  
49 (0) 73 63 81 0

### Asia

**Shanghai, China**  
No. 177 Bibo Road  
201, Area C  
Shanghai 201203  
China  
86 21 60880320

**India**  
Gala No. 1, Plot No. 5 S. No. 234, 235 & 245  
Indialand Global Industrial Park Taluka-Mulsi, Phase I  
Maharashtra 411057  
India  
91 020 66761111

# Solutions are in our DNA

## Cleco®

Production Tools

Assembly Tools



## Cleco®

Production Tools

Material Removal



## Cleco®

Production Tools

Drilling & Riveting



## APEX®

ASSEMBLY & FABRICATION TOOLS

Fastening Solutions



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THE TOOL COMPANY

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