

Cleco | Tame the Line

PRODUCT CATALOG

Assembly, Material Removal,
Drilling & Riveting Tools



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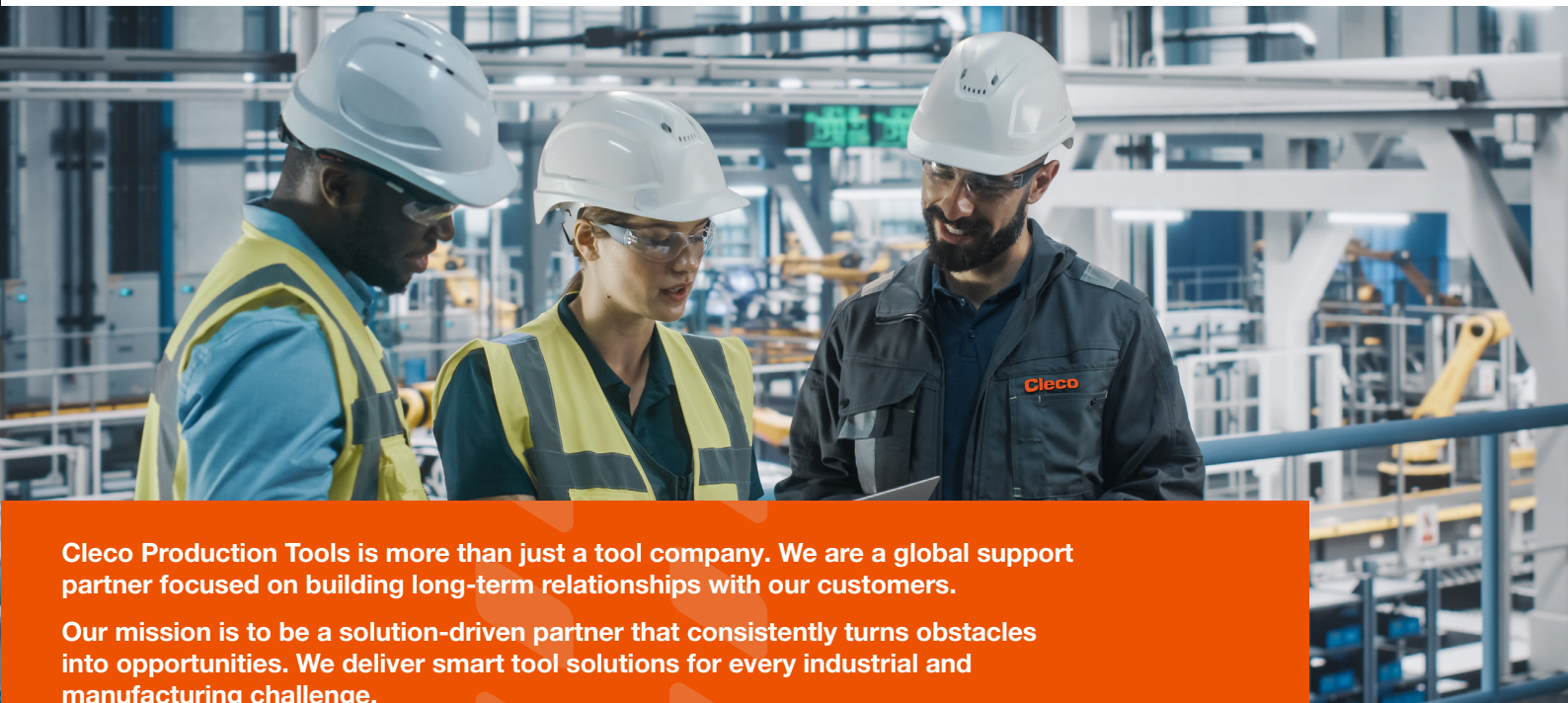


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Ready with solutions that make your line more accurate, connected, productive and safe.



Cleco Production Tools is more than just a tool company. We are a global support partner focused on building long-term relationships with our customers.

Our mission is to be a solution-driven partner that consistently turns obstacles into opportunities. We deliver smart tool solutions for every industrial and manufacturing challenge.

Cleco offers fit-for-purpose, integrated tool solutions to keep your assembly line running smoothly. Our production tool solutions help improve productivity, control quality and maintain safety. Since 1894, Cleco has delivered value to many of the world's leading manufacturers in a variety of industries, including Automotive/Motor Vehicle Industry, Agriculture & Lawn Equipment, Heavy Truck & Trailer, Large Appliance, Aerospace and more.

North America

Detroit, Michigan

2630 Superior Court
Auburn Hills, MI 48236
United States
1 (248) 391-3700

Lexington, South Carolina

670 Industrial Drive
Lexington, SC 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

Mississauga, Canada

7631 Bath Road
Mississauga L4T 3T1
Canada
(866) 691-6212

South America

Sao Paulo, Brazil

Avenida Liberdade 4055
Iporanga-Sorocaba
Sao Paulo 18087-170
Brazil
55 15 3238 3870

Europe

Westhausen, Germany

Industriestraße 1
73463 Westhausen
Germany
49 (0) 73 63 81 0

Asia Pacific

Shanghai, China

No. 177 Bibo Road
201, Area C
Pu Dong New Area,
Shanghai
China 201203 P.R.C.
86 21 60880320

Albury, Australia

519 Nurigong Street, Albury
NSW 2640
Australia
61 2 6058 0300

Pune, India

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

Tokyo, Japan

Korin-Kaikan 5F
3-6-23 Shibakoen
Minato-Ku, Tokyo 105-0011
Japan
81-3-6450-1840

Seoul, Korea

#1503, Hilbrand Living Bldg.
215 Yangjae-dong
Seocho-gu, Seoul 137-924
Korea
82-2-2155-0250

Cleco

ASSEMBLY TOOLS



Cleco | Tame the Line

SHOWN: CELLCLUTCH

ASSEMBLY TOOLS

COUNT ON **CLECO CORDLESS ASSEMBLY TOOLS** WHEN MOBILITY IS ESSENTIAL.

Cleco cordless assembly tools are designed for maximum mobility. Cleco offers the ability to run up to 16 cordless assembly tools from one global controller, a savings of up to 50% over traditional systems. Cleco Cordless nutrunners have been designed to provide wireless connectivity in manufacturing environments. The flexibility of a wireless tool in safety critical applications can greatly improve operator productivity.



THE SMARTEST TOOL FOR THE **TOUGHEST ENVIRONMENT.**

The new CellCore™ cordless assembly tools are smart, durable and designed to withstand the toughest environments. The lightweight ergonomic design reduces operator fatigue while delivering state-of-the-art power, weight and balance. A large user interface makes it quick and easy to program rundowns on the tool without a controller. CellCore puts you in control with cordless assembly tools that are easy to handle, and hard to break.

CLECO'S LIVEWIRE™ 2 TOOLS ARE **STRONGER, LIGHTER, AND LONG LASTING.**

LiveWire™ 2 tools perform up to 1700 rundowns on a single battery charge and can run up to 500,000 cycles between maintenance. The second generation of LiveWire 2 tools is lighter than the original, has a compact design, and still maintains the same operator-friendly interface and precision performance you've come to know from Cleco.



CellClutch®

Simplicity and intelligence merge with our newest innovation in cordless tools. CellClutch delivers torque control for functional joints, programmable with up to seven stages to prevent cross thread errors, has RPM speed control and provides repeatability and fastening accuracy during the assembly tightening process.

Quick Tool Installation

Setting the preferred torque is a quick and easy 3-step process: Complete a rundown, read the torque and make adjustments, complete another rundown to verify required torque is met.

Software Included at No Extra Charge

Reduce total cost of ownership with CellClutch software included with tool purchase.

Improved Visibility

Built-in LED worklight illuminates the work surface to reduce strain.



Powered by the Milwaukee® M18 Red Lithium battery platform and available in WiFi/Bluetooth connected versions, CellClutch tools can seamlessly communicate with the Cleco mPro™ line of controllers using both WiFi (2.4 & 5 GHz) and Bluetooth v4.2 (Low Energy and BR/EDR wireless communication) in a single convenient tool. With CellClutch, tool intelligence has never been so simple.



Accuracy

CM > 1.67 within a +/- 10% tolerance range

Speed Control

Easily change the tool's RPM settings to meet the required application requirements.

Ergonomic

Lightweight, cordless design eliminates the need for bulky cords and hoses.

Connected Advantage*

WiFi (2.4 & 5 GHz) and Bluetooth v4.2 (Low Energy and BR/EDR wireless communication) connected for easy-to-program setting adjustments, live reporting, traceability, and batch counting through the mPro controller platform.

* Available in Connected version only, mPro controller sold separately.

*Bluetooth is a registered trademark owned by Bluetooth SIG, Inc.

CellClutch Connect - Cordless Electric - Pistol

CellClutch® Cordless Assembly Tools deliver simple, programmable torque control to your line.

- Reduced Operator Error - Pre-set torque, “ok” “not ok” green and red lights make tool operation simple.
- Eliminate cross threads and errors during rundowns with programmable speeds and strategies.
- Eliminate Over Torque Damage - Contactless electronic switch shuts off tightening rotation when set torque is reached.
- Reliable Single Battery Platform - Milwaukee® M18 Red Lithium battery can be used across the entire Cleco cordless range to reduce complexity and costs in your plant.
- WiFi (2.4 & 5 GHz) and Bluetooth v4.2 (Low Energy and BR/EDR) wireless communication for easy-to-program setting adjustments, live reporting, traceability, and batch counting through the mPro controller platform.
- *Available in Connected version only, mPro Controller sold separately
- *Bluetooth is a registered trademark owned by Bluetooth SIG, Inc.
- Speed Control - Easily change the tool's RPM settings to meet the required application requirements.
- Ergonomic - Lightweight, cordless design eliminates the need for bulky cords and hoses.
- Improved Visibility - Built-in LED worklight illuminates the work surface to reduce strain.
- Software Included At No Extra Charge - Reduce total cost of ownership with CellClutch software included with tool purchase.
- Accuracy – CM 1.67 within a +/- 10% tolerance range



Model	Torque Range				Free Speed (rpm)	Weight	
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb		Lb	kg
CLBPW04Q-00	1.1	4.0	0.8	2.9	1500 r/min	2.4	1.1
CLBPW04Q-CN	1.1	4.0	0.8	2.9	1500 r/min	2.4	1.1
CLBPW04Q-EU	1.1	4.0	0.8	2.9	1500 r/min	2.4	1.1
CLBPW04Q-NA	1.1	4.0	0.8	2.9	1500 r/min	2.4	1.1
CLBPW08Q-00	2.1	8.0	1.5	5.9	985 r/min	2.4	1.1
CLBPW08Q-CN	2.1	8.0	1.5	5.9	985 r/min	2.4	1.1
CLBPW08Q-EU	2.1	8.0	1.5	5.9	985 r/min	2.4	1.1
CLBPW08Q-NA	2.1	8.0	1.5	5.9	985 r/min	2.4	1.1
CLBPW12Q-00	3.2	12.0	2.4	8.8	700 r/min	2.4	1.1
CLBPW12Q-CN	3.2	12.0	2.4	8.8	700 r/min	2.4	1.1
CLBPW12Q-EU	3.2	12.0	2.4	8.8	700 r/min	2.4	1.1
CLBPW12Q-NA	3.2	12.0	2.4	8.8	700 r/min	2.4	1.1

Note: Connected tools are region-specific. To avoid Wi-Fi or connectivity issues, make sure to order the correct model number for the region where the tool will be used.

NA=North America, EU=Europe, CH=China; 00=Rest of World

CellClutch Connect- Cordless Electric - Right Angle

CellClutch® Cordless Assembly Tools deliver simple, programmable torque control to your line.



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- Reliable Single Battery Platform - Milwaukee® M18 Red Lithium battery can be used across the entire Cleco cordless range to reduce complexity and costs in your plant.
- Quick Tool Installation - Setting the preferred torque is a quick and easy 3-step process: Complete a rundown, read the torque and make adjustments, complete another rundown to verify required torque is met.
- WiFi (2.4 & 5 GHz) and Bluetooth v4.2 (Low Energy and BR/EDR) wireless communication for easy-to-program setting adjustments, live reporting, traceability, and batch counting through the mPro controller platform.
- *Available in Connected version only, mPro Controller sold separately
- *Bluetooth is a registered trademark owned by Bluetooth SIG, Inc.
- Speed Control - Easily change the tool's RPM settings to meet the required application requirements.
- Ergonomic - Lightweight, cordless design eliminates the need for bulky cords and hoses.
- Improved Visibility - Built-in LED worklight illuminates the work surface to reduce strain.
- Software Included At No Extra Charge - Reduce total cost of ownership with CellClutch software included with tool purchase.
- Accuracy – CM 1.67 within a +/- 10% tolerance range

Model	Torque Range				Free Speed (rpm)	Weight	
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb		Lb	kg
CLBAW203-CN							
CLBAW303-CN							
CLBAW653-00	15.9		11.7	47.9	115 r/min	4.3	2.0
CLBAW083-00	2.2	8	1.6	5.9	915 r/min	3.3	1.5
CLBAW083-CN	2.2	8	1.6	5.9	915 r/min	3.3	1.5
CLBAW083-EU	2.2	8	1.6	5.9	915 r/min	3.3	1.5
CLBAW083-NA	2.2	8	1.6	5.9	915 r/min	3.3	1.5
CLBAW123-00	3.3	12	2.4	8.8	650 r/min	3.3	1.5
CLBAW123-CN	3.3	12	2.4	8.8	650 r/min	3.3	1.5
CLBAW123-EU	3.3	12	2.4	8.8	650 r/min	3.3	1.5
CLBAW123-NA	3.3	12	2.4	8.8	650 r/min	3.3	1.5
CLBAW203-00	8.3	21	6.1	15.5	360 r/min	3.9	1.8
CLBAW203-EU	8.3	21	6.1	15.5	360 r/min	3.9	1.8
CLBAW203-NA	8.3	21	6.1	15.5	360 r/min	3.9	1.8
CLBAW303-00	8.3	30	6.1	22.1	255 r/min	3.9	1.8
CLBAW303-EU	8.3	30	6.1	22.1	255 r/min	3.9	1.8
CLBAW303-NA	8.3	30	6.1	22.1	255 r/min	3.9	1.8
CLBAW403-00	15.1	41	11.1	30.2	185 r/min	4.1	1.9
CLBAW403-CN	15.1	41	11.1	30.2	185 r/min	4.1	1.9
CLBAW403-EU	15.1	41	11.1	30.2	185 r/min	4.1	1.9
CLBAW403-NA	15.1	41	11.1	30.2	185 r/min	4.1	1.9
CLBAW653-CN	15.9	65	11.7	47.9	115 r/min	4.3	2
CLBAW653-EU	15.9	65	11.7	47.9	115 r/min	4.3	2
CLBAW653-NA	15.9	65	11.7	47.9	115 r/min	4.3	2

Note: Connected tools are region-specific. To avoid Wi-Fi or connectivity issues, make sure to order the correct model number for the region where the tool will be used.

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CellClutch - Cordless Electric - Pistol

CellClutch® Cordless Assembly Tools deliver simple, programmable torque control to your line.

- Reduced Operator Error - Pre-set torque, “ok” “not ok” green and red lights make tool operation simple.
- Eliminate cross threads and errors during rundowns with programmable speeds and strategies.
- Eliminate Over Torque Damage - Contactless electronic switch shuts off tightening rotation when set torque is reached.
- Reliable Single Battery Platform - Milwaukee® M18 Red Lithium battery can be used across the entire Cleco cordless range to reduce complexity and costs in your plant.
- Quick Tool Installation - Setting the preferred torque is a quick and easy 3-step process: Complete a rundown, read the torque and make adjustments, complete another rundown to verify required torque is met.
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- Accuracy – CM 1.67 within a +/- 10% tolerance range



Model	Torque Range				Free Speed (rpm)	Weight	
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb		Lb	kg
CLBP04Q	1.1	4.0	0.8	2.9	1500 r/min	2.4	1.1
CLBP08Q	2.1	8.0	1.5	5.9	985 r/min	2.4	1.1
CLBP12Q	3.2	12.0	2.4	8.8	700 r/min	2.4	1.1

CellClutch - Cordless Electric - Right Angle

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Model	Torque Range				Free Speed (rpm)	Weight	
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb		Lb	kg
CLBA083	2.2	8	1.6	5.9	915 r/min	3.3	1.5
CLBA123	3.3	12	2.4	8.8	650 r/min	3.3	1.5
CLBA203	8.3	21	6.1	15.5	360 r/min	3.9	1.8
CLBA303	8.3	30	6.1	22.1	255 r/min	3.9	1.8
CLBA403	15.1	41	11.1	30.2	185 r/min	4.1	1.9
CLBA653	15.9	65	11.7	47.9	115 r/min	4.3	2

Introducing:

CellTek™

Cordless Assembly Tools

Safety/Accuracy

Repeatability of 2.0 cm/cmK @ +/- 7% accuracy for safety critical joints

FEEL THE FUTURE OF CONNECTIVITY

Cleco's new CellTek™ Cordless Assembly Tools bring superior connectivity, with the most reliable real-time synchronization with manufacturing and engineering systems. Designed to ensure safety-critical assembly with best-in-class accuracy, they are also the fastest cordless assembly tools in its class.



Multi-Color LED

Work light for secondary "ok/not ok" operator feedback while also illuminating your workpiece

Designed to enable the **Smart Factory of Tomorrow**, Cleco introduces the **most advanced cordless nutrunner, CellTek.**



Connectivity - The most reliable real-time synchronization with manufacturing and engineering systems



Speed - Improve your production time with the fastest cordless assembly tools in its class



Ergonomic - Sleek and lightweight for the ultimate in comfort and balance



Accurate - Ensures safety-critical assembly with best-in-class accuracy and repeatability

FEEL THE FUTURE OF CONNECTIVITY



Decreased Takt Times

Patented motor technology allows increased speeds over other battery platforms



Stay Alive Function

Prevents reboot during battery change, gaining time and efficiency



Flexible

Easily connects over Wifi (2.4 & 5.0 GHz) or Bluetooth 4.0



CellTek - Cordless Electric - Pistol

Designed to ensure safety-critical assembly with best-in-class accuracy, they are also the fastest cordless assembly tools in its class.



- Connectivity - The most reliable realtime synchronization with manufacturing and engineering systems
- Speed - Improve your production time with the fastest cordless assembly tools in its class
- Ergonomic - Sleek and lightweight for the ultimate in comfort and balance
- Accurate - Ensures safety-critical assembly with best-in-class accuracy and repeatability

Model	Torque Range				Free Speed (rpm)	Weight		Output Drive
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb		Lb	kg	
CTBPW05Q	1.1	4.9	0.8	3.6	3525 r/min	2.0	0.90	1/4" Quick Change
CTBPW10Q	2.4	10.0	1.8	7.4	1600 r/min	2.1	0.95	1/4" Quick Change
CTBPW15Q	3.4	14.4	2.5	10.6	1125 r/min	2.1	0.95	1/4" Quick Change

Values do not include battery.

2ah Battery weighs 0.43kg. 5ah Battery weighs 0.72kg.

CellTek - Cordless Electric - Right Angle

Designed to ensure safety-critical assembly with best-in-class accuracy, they are also the fastest cordless assembly tools in its class.

- Connectivity - The most reliable realtime synchronization with manufacturing and engineering systems
- Speed - Improve your production time with the fastest cordless assembly tools in its class
- Ergonomic - Sleek and lightweight for the ultimate in comfort and balance
- Accurate - Ensures safety-critical assembly with best-in-class accuracy and repeatability



Model	Torque Range				Free Speed (rpm)	Weight		Output Drive
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb		Lb	kg	
CTBAW153	3.6	15.0	2.7	11.1	1025 r/min	3.1	1.40	3/8" Square Drive
CTBAW213	5.2	21.0	3.8	15.5	735 r/min	3.1	1.40	3/8" Square Drive
CTBAW273	6.8	27.0	5.0	19.9	560 r/min	3.1	1.40	3/8" Square Drive
CTBAW383	10.0	38.0	7.4	28.0	395 r/min	3.4	1.55	3/8" Square Drive
CTBAW503	13.0	50.0	9.6	36.9	285 r/min	3.5	1.60	3/8" Square Drive
CTBAW653	17.0	65.0	12.5	47.9	220 r/min	3.7	1.70	3/8" Square Drive

Values do not include battery.

2ah Battery weighs 0.43kg. 5ah Battery weighs 0.72kg.

CellCore™ puts you in control with cordless assembly tools that are **easy to handle**, and **hard to break**.

Cleco's new CellCore™ Cordless Assembly Tools are smart, durable and designed to withstand the toughest environments. The lightweight ergonomic design reduces operator fatigue while delivering state-of-the-art power, weight and balance. A large user interface makes it quick and easy to program rundowns on the tool without a controller.



Durable - Assembly line tough
(Drop tested up to 5 feet)



Reliable - Increases uptime with 500k cycles between maintenance



Ergonomic - Reduces operator fatigue while delivering state-of-the-art power and intelligence



Easy to Use - Large user interface allows easy on-the-tool programming without a controller

EASY TO HANDLE. HARD TO BREAK.



CellCore is the most versatile, easy-to-use cordless tool in the industry.





Users can program up to 10 rundown strategies, called “FastApps”, directly on the tool in standalone mode. Users can also pair CellCore tools with Cleco's new mPro200 controller. By pairing the devices, users can easily capture data in real time and program advanced rundowns within a much more compact footprint.

THE SMARTEST TOOL FOR THE TOUGHEST ENVIRONMENT



CellCore High Torque



-  **FastApps** - Program up to 10 applications directly on the tool or connect to a controller for maximum functionality
-  **Versatile** - 40-2000Nm range allowing more flexibility in your tool
-  **Reliable** - Norbar® torque multiplier provides proven accuracy and quality
-  **Access** - 360° rotating head and handle for maximum accessibility

**ALL
NEW**

CellCore - Cordless Electric - Pistol

Assembly line tough, designed for Quality Critical Applications and programming on the tool

- Durable - Assembly line tough (Drop tested up to 5 feet!)
- Reliable - Increases uptime with 500k cycles between maintenance
- Ergonomic - Reduces operator fatigue while delivering state-of-the-art power and intelligence
- Easy to Use - Large user interface allows easy on-the-tool programming without a controller

Model	Torque Range				Free Speed (rpm)	Weight		Output Drive
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb		Lb	kg	
CCBPW04Q	1.2	4	0.9	2.9	2480 r/min	2.16	0.98	1/4" Quick Change
CCBPW123	3.6	12	2.7	8.8	800 r/min	2.32	1.05	3/8" Square Drive
CCBPW12Q	3.6	12	2.7	8.8	800 r/min	2.32	1.05	1/4" Quick Change
CCBPW223	6.6	22	4.9	16.2	430 r/min	2.32	1.05	3/8" Square Drive
CCBPW22Q	6.6	22	4.9	16.2	430 r/min	2.32	1.05	1/4" Quick Change

Values do not include battery.
2ah Battery weighs 0.43kg. 5ah Battery weighs 0.72kg.



CellCore - Cordless Electric - Right Angle

Assembly line tough, designed for Quality Critical Applications and programming on the tool

- Durable - Assembly line tough (Drop tested up to 5 feet)
- Reliable - Increases uptime with 500k cycles between maintenance
- Ergonomic - Reduces operator fatigue while delivering state-of-the-art power and intelligence
- Easy to Use - Large user interface allows easy on-the-tool programming without a controller

Model	Torque Range				Free Speed (rpm)	Weight		Output Drive
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb		Lb	kg	
CCBAW153	4.5	15	3.3	11.0	570 r/min	3.75	1.70	3/8" Square Drive - Pin Detent
CCBAW15B	4.5	15	3.3	11.0	570 r/min	3.75	1.70	3/8" Square Drive - Ball Retainer
CCBAW253	7.5	25	5.5	18.4	305 r/min	3.75	1.70	3/8" Square Drive - Pin Detent
CCBAW25B	7.5	25	5.5	18.4	305 r/min	3.75	1.70	3/8" Square Drive - Ball Retainer
CCBAW353	10.5	35	7.7	25.8	255 r/min	4.3	1.95	3/8" Square Drive - Pin Detent
CCBAW35B	10.5	35	7.7	25.8	255 r/min	4.3	1.95	3/8" Square Drive - Ball Retainer
CCBAW503	15	50	11.1	36.8	165 r/min	4.41	2.00	3/8" Square Drive - Pin Detent
CCBAW50B	15	50	11.1	36.8	165 r/min	4.41	2.00	3/8" Square Drive - Ball Retainer

Values do not include battery.
2ah Battery weighs 0.43kg.
5ah Battery weighs 0.72kg.



CellCore – Cordless Electric – High Torque

Assembly line tough, designed for High Torque Applications and programming on the tool

- FastApps – Program up to 10 applications directly on the tool or connect to a controller for maximum functionality
- Versatile – 40-2000 Nm range allowing more flexibility in your tool
- Reliable – Norbar® torque multiplier provides proven accuracy and quality
- Access – 360° rotating head and handle for maximum accessibility



Model	Torque Range				Free Speed (rpm)	Weight		Output Drive
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb		Lb	kg	
CCBPWN200D6	39	195	29.5	143.8	42 r/min	7.41	3.36	3/4" Square Drive
CCBAWN225NB6	45	225	33.2	166	34 r/min	10.3	4.7	3/4" Square Drive
CCBPWN500D6	119	500	87.8	368.8	14 r/min	7.41	3.36	3/4" Square Drive
CCBAWN750NB6	154	750	113.6	553.2	11 r/min	11.0	5.0	3/4" Square Drive
CCBAWN1000NB6	200	1000	147.5	737.6	7 r/min	11.0	5.0	3/4" Square Drive
CCBPWN1000D6	214	1000	157.8	737.6	8 r/min	14.73	6.68	3/4" Square Drive
CCBPWN1350D8	293	1350	216	995.7	6 r/min	14.73	6.68	1" Square Drive
CCBPWN2000D8	436	2000	321.6	1475	4 r/min	14.73	6.68	1" Square Drive

Values do not include battery.
 2ah Battery weighs 0.43kg.
 5ah Battery weighs 0.72kg.

Batteries

Batteries for Cordless Tools

- Smart Lithium-Ion Battery pack for the complete Cleco Cordless product line
- 2.0 Ah 18V and 5.0 Ah 18V options

Model	Description
T50-1000497	18V, 2.0Ah Battery (.43kg/.94lb)
T50-1000498	18V, 5.0Ah Battery (.72kg/1.60lb)



Chargers

Chargers for Batteries

- Battery Charger for 18V batteries

Model	Description
T50-1000499	18V Rapid Charger (110V NA)
T50-1000500	18V 6-Bay Sequential Charger (110V NA)
T50-1000506	18V Rapid Charger (220V EMEA)
T50-1000507	18V Charger (Brazil)
T50-1000508	18V 6-Bay Sequential Charger (220V EMEA)
T50-1000543	18V Charger (Argentina)
T50-1000544	18V Rapid Charger (UK)
T50-1000545	18V Rapid Charger (PRC)
T50-1000546	18V Rapid Charger (JP)
T50-1000547	18V 6-Bay Sequential Charger (UK)



CellCore Protective Tool Covers

Protective Scratch Covers for Cellcore

- CellCore clear PVC protective covers protect your tool and your workpiece
- CellCore Pistol cover protects the tool body, screen and buttons; Right Angle cover protects the nutrunner head

Model
T50-1000656
T50-1000657
T50-1000658
T50-1000659
T50-1000660



CellClutch Pistol ID rings

- Color identification ring for Cleco CellClutch pistol tool
- Sold in pack of five (5)



Model
CellClutch Pistol ID Ring 5 Pack - Black
CellClutch Pistol ID Ring 5 Pack - Blue
CellClutch Pistol ID Ring 5 Pack - Green
CellClutch Pistol ID Ring 5 Pack - Grey
CellClutch Pistol ID Ring 5 Pack - Red
CellClutch Pistol ID Ring 5 Pack - Yellow

CellClutch Right Angle ID Rings

- Color identification ring for Cleco CellClutch right angle tool
- Sold in pack of five (5)

Model
CellClutch RA ID Ring 5 Pack - Black
CellClutch RA ID Ring 5 Pack - Blue
CellClutch RA ID Ring 5 Pack - Green
CellClutch RA ID Ring 5 Pack - Grey
CellClutch RA ID Ring 5 Pack - Red
CellClutch RA ID Ring 5 Pack - Yellow

Torque Analyzer

Up to 68Nm/50 ftlbs use with Electric, Pneumatic Clutch Stall and Pulse and Manual Electronic and Click Torque Wrenches

- Choice of measurement modes including track, peak, pulse, and click
- Memory for 999 date- and time-stamped readings for complete traceability
- 3-color LED indication of torque measurement status
- Easy-to-operate for fast and accurate torque readings and assembly tool auditing
- Automatically switches to highest voltage power source (main/USB/battery)
- Clear, easy-to-read white OLED screen for basic torque data readings and alerts



Model	Description	Torque Range Max	
		Ft Lb	Nm
CJK38	Dynamic Joint Kit for use with 68Nm Stationary Transducer	50	68
CST6838	68 Nm Stationary Transducer	50	68
CTA0414	0.4-4 Nm Torque Analyzer	3	4
CTA3038	3.0-30Nm Torque Analyzer	22	30

LiveWire 2 - 17 Series - Cordless Electric - Pistol

Lightweight pistol tool designed for safety critical applications

- Accurate - Designed for safety critical applications with a CM/CMK of 2.0 at +/- 7% accuracy
- Economical - Save money, time and space by pairing up to 16 tools to just one Mpro Controller
- Ergonomic - Reduce operator fatigue with lighter, ergonomic tools
- Reliable - Increase uptime with 500k cycles between maintenance periods
- Interchangeable - Decrease downtime by swapping tools quickly on the assembly line with the LiveWire memory chip



Pistol grip nutrunner nomen

17	B	P	Y	P	B	XX	Q	L
Motor 17	Supply B - Batt./PM48				Input Voltage B - 26-48 V			L - Lightweight
Tool Version P - Pistol Grip				P - Expansion Platform				Type of Output Drive Q - Quick-change
Data Transfer Y - WLAN: Dual band 2.4 GHz, 5 GHz								Max. Torque (Nm) 05 - 5 Nm 07 - 7 Nm 09 - 9 Nm 13 - 13 Nm

Model	Torque Range				Free Speed		Length	Weight		Output Drive
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	r/min (26V)	r/min (44V)	In (26V)	Lb	kg	
17BPYPB05QL	3.0	5.0	2.2	3.7	1639	2428	8.4	2.8	1.26	1/4" Quick Change
17BPYPB07QL	3.0	7.0	2.2	5.2	1161	1721	8.4	2.77	1.26	1/4" Quick Change
17BPYPB09QL	3.0	9.0	2.2	6.6	887	1314	8.4	2.8	1.26	1/4" Quick Change
17BPYPB13QL	3.0	13.0	2.2	9.6	629	931	8.4	2.77	1.26	1/4" Quick Change

General:

All tools must be used with an approved Cleco tightening controller or suitable PC software.

Battery weights: 26 V Li-Ion 1.1lbs. (0.50kg), 44 V Li-Ion 1.9 lbs. (0.85kg).

The 44 V battery is 19mm/.705" shorter than the 26V battery.

Extra Equipment:

Scanner, sockets, batteries, and chargers must be ordered separately.

LiveWire 2 - 47 Series - Cordless Electric - Right Angle

Lightweight Right angle tool designed for safety critical applications

- Accurate - Designed for safety critical applications with a CM/CMK of 2.0 at +/- 7% accuracy
- Economical - Save money, time and space by pairing up to 16 tools to just one Mpro Controller
- Ergonomic - Reduce operator fatigue with lighter, ergonomic tools
- Reliable - Increase uptime with 500k cycles between maintenance periods
- Interchangeable - Decrease downtime by swapping tools quickly on the assembly line with the LiveWire memory chip



47	B	A	Y	P	B	XX	XXX	X	L
Motor 47	Supply B - Batt./PM48				Version B - 26-48 V			Output Drive Size P3 - 3/8" Sq. dr. spiral geared P4 - 1/2" Sq. dr. spiral geared	Tool Series L - LiveWire 2 Series Output Drive Locking - Pin locking B - Ball locking
Version A - Right angle				P - Expansion platform				Max. Torque Nm 15 - 15 Nm 21 - 21 Nm 28 - 28 Nm	35 - 35 Nm 48 - 48 Nm 65 - 65 Nm
Data Transfer Y - WLAN: Dual band 2.4 GHz, 5 GHz									

Model	Torque Range				Free Speed		Length	Weight		Output Drive
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	r/min (26V)	r/min (44V)	In (26V)	Lb	kg	
47BAYPB15P3L	5.5	15	4.06	11.1	487	891	22.9	4.03	1.83	3/8" Square Drive
47BAYPB21P3L	8	21	5.9	15.5	370	680	22.9	4.03	1.83	3/8" Square Drive
47BAYPB28P3L	10	28	7.4	20.7	264	482	22.9	4.03	1.83	3/8" Square Drive
47BAYPB35P3L	12	35	8.9	25.8	255	446	23.0	4.14	1.88	3/8" Square Drive
47BAYPB48P3L	18	48	13.3	35.4	181	316	23.5	4.34	1.97	3/8" Square Drive
47BAYPB65P4L	15	65	11.1	47.9	135	236	23.54	4.56	2.07	3/8" Square Drive

General:

All tools must be used with an approved Cleco tightening controller or suitable PC software.

Battery weights: 26 V Li-Ion 1.1lbs. (0.50kg), 44 V Li-Ion 1.9 lbs. (0.85kg). The 44 V battery is 19mm/.705" shorter than the 26V battery.

Extra Equipment:

Scanner, sockets, batteries, and chargers must be ordered separately.

High Torque LiveWire - 47 Series - Cordless Electric - Right Angle - Nutrunner

Right angle tool designed for safety critical applications

- Accurate - Designed for safety critical applications with a CM/CMK of 2.0 at +/- 7% accuracy
- Economical - Save money, time and space by pairing up to 16 tools to just one Mpro Controller
- Reliable - Increase uptime with 500k cycles between maintenance periods
- Interchangeable - Decrease downtime by swapping tools quickly on the assembly line with the LiveWire memory chip



Right angle nutrunner nomenclature

47	B	A	X	X	B	XX	XXX	X
Motor 47 - B - Batt/PM48	Supply B - Batt/PM48	Tool Version A - Right angle	Data Transfer Y - WLAN: Dual band	Input Voltage B - 26-48 V	Peripherals S - Barcode scanner P - Expansion platform	Output Drive Size P3 - 3/8" Sq. dr. spiral geared P4 - 1/2" Sq. dr. spiral geared	Output Drive Locking - Pin locking B - Ball locking	Max. Torque (Nm) 15 - 15 Nm 21 - 21 Nm 28 - 28 Nm 35 - 35 Nm

Model	Torque Range				Free Speed		Length In (26V)	Weight		Output Drive
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	r/min (26V)	r/min (44V)		Lb	kg	
47BAYPB70P4	24	70	17.7	51.7	123	216	27.2	9.2	4.18	1/2" Square Drive
47BAYPB90P4	40	90	29.5	66.4	80	140	27.2	9.2	4.18	1/2" Square Drive

General:

All tools must be used with an approved Cleco tightening controller or suitable PC software.

Battery weights: 26 V Li-Ion 1.1lbs. (0.50kg), 44 V Li-Ion 1.9 lbs. (0.85kg).

The 44 V battery is 19mm/.705" shorter than the 26V battery.

Extra Equipment: Scanner, sockets, batteries, and chargers must be ordered separately.

LiveWire - 47 Series - Cordless Electric - Inline

Inline tool designed for safety critical applications

- Accurate - Designed for safety critical applications with a CM/CMK of 2.0 at +/- 7% accuracy
- Economical - Save money, time and space by pairing up to 16 tools to just one Mpro Controller
- Reliable - Increase uptime with 500k cycles between maintenance periods
- Interchangeable - Decrease downtime by swapping tools quickly on the assembly line with the LiveWire memory chip



47	B	S	Y	B	XX	X
Motor 47	Supply B - Batt/PM48	Tool Version S - Straight	Data Transfer Y - WLAN: Dual band 2.4 GHz, 5 GHz	Input Voltage B - 26-48 V	Type of Output Drive D3 - Square 3/8" D4 - Square 1/2"	Max. Torque (Nm) 10 - 10 Nm 15 - 15 Nm 30 - 30 Nm 45 - 45 Nm 60 - 60 Nm

Model	Torque Range				Free Speed		Length In (26V)	Weight		Output Drive
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	r/min (26V)	r/min (44V)		Lb	kg	
47BSYB10D3	3	10	2.2	8.1	750	1375	20.3	3.9	1.80	3/8" Square Drive
47BSYB15D3	5	15	3.6	11.8	570	1050	20.5	3.9	1.80	3/8" Square Drive
47BSYB30D3	10	30	7.3	23.6	275	485	20.7	3.9	1.80	3/8" Square Drive
47BSYB45D3	15	45	11	33.1	205	355	23.2	5.9	2.70	3/8" Square Drive
47BSYB60D4	21	60	15.4	44.2	145	250	23.3	6.1	2.80	1/2" Square Drive

General:

All tools must be used with an approved Cleco tightening controller or suitable PC software.

Battery weights: 26 V Li-Ion 1.1lbs. (0.50kg), 44 V Li-Ion 1.9 lbs. (0.85kg).

The 44 V battery is 19mm/.705" shorter than the 26V battery.

Extra Equipment:

Scanner, sockets, batteries, and chargers must be ordered separately.

LiveWire - 47 Series - Cordless Electric - Crowfoot

Crowfoot tool designed for hard to reach, safety critical applications



- Accurate - Designed for safety critical applications
- Economical - Save money, time and space by pairing up to 16 tools to just one Mpro Controller
- Reliable - Increase uptime with 500k cycles between maintenance periods
- Interchangeable - Decrease downtime by swapping tools quickly on the assembly line with the LiveWire memory chip

47	B	C	X	X	B	XX	CS	XX	X	X
Motor 47	Supply B - Batt./PM48				Input Voltage B - 26-48 V		Head CS - Crowfoot			Type of Output Drive 1 - Thru hex
Tool Version C - Crowfoot nutrunner					Options S - Barcode scanner - None	Head Version C1 - 15° C3 - 30°				Extensions 0 - Flush 4 - 1/2" 6 - 3/4"
Data Transfer Y - WLAN: Dual band 2.4 GHz, 5 GHz										Socket Sizes EA - 1/4" MA - 7 mm MF - 12 mm EC - 3/8" MB - 8 mm (5/16) MG - 13 mm EE - 1/2" MC - 9 mm MH - 14 mm EF - 9/16" MD - 10 mm MI - 15 mm ME - 11 mm (7/16)

Model	Torque Range				Free Speed		Length In (26V)	Weight		Output Drive
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	r/min (26V)	r/min (44V)		Lb	kg	
47BCYSB30C1	10.5	30	7.7	22.1	186	186	26.3	6.1	2.78	15mm
47BCYSB30C3	10.5	30	7.7	22.1	326	326	26.0	6.1	2.78	15mm

General:

All tools must be used with an approved Cleco tightening controller or suitable PC software.

Battery weights: 26 V Li-Ion 1.1lbs. (0.50kg), 44 V Li-Ion 1.9 lbs. (0.85kg).

The 44 V battery is 19mm/.705" shorter than the 26V battery.

Extra Equipment: Scanner, sockets, batteries, and chargers must be ordered separately.

LiveWire - 47 Series - Cordless Electric - Tubenut

Tubenut tool designed for safety critical applications such as brake line fittings and fuel line assembly



- Accurate - Designed for safety critical applications
- Economical - Save money, time and space by pairing up to 16 tools to just one Mpro Controller
- Reliable - Increase uptime with 500k cycles between maintenance periods
- Interchangeable - Decrease downtime by swapping tools quickly on the assembly line with the LiveWire memory chip

Tube nutrunner nomenclature							Socket identifier				
47	B	T	X	X	X	XX	KSX	XX	X	X	
Motor 47	Supply B - Batt./PM48					Input Voltage B - 26-48 V		Head Size KS2 - T2 KS3 - T3 KS4 - T4		Type of Output Drive 0 - Partial thru hex 1 - Thru hex 2 - Double thru hex 3 - Partial double thru hex	
Tool Version T - Tube nut wrench						Options S - Barcode scanner - None				Extensions 0 - Flush 4 - 1/2" 2 - 1/4" 6 - 3/4"	
Data Transfer Y - WLAN: Dual band 2.4 GHz, 5 GHz						Max. Torque (Nm) T2 - 20 Nm T3 - 30 Nm T4 - 40 Nm				Max. Hex Socket Sizes MG, EE T2 head version MM, 3/4" T3 head version MU, 1 1/16" T4 head version 00, ## (special) All head versions	
Socket Sizes											
EA - 1/4"	M5 - 5 mm	MH - 14 mm	MP - 22 mm								
EC - 3/8	M6 - 6 mm	MI - 15 mm	MQ - 23 mm								
EE - 1/2	MA - 7 mm	MJ - 16 mm (5/8")	MR - 24 mm (15/16")								
EF - 9/16	MG - 8 mm (5/16)	MK - 17 mm	MS - 25 mm								
EH - 11/16	MD - 10 mm	ML - 18 mm	MT - 26 mm								
EJ - 13/16	ME - 11 mm (7/16)	MM - 19 mm (3/4")	MU - 27 mm (1 1/16")								
EK - 7/8	MF - 12 mm	MN - 20 mm									
EM - 1"	M9 - 13 mm	MO - 21 mm									

Model	Torque Range				Free Speed		Length In (26V)	Weight		
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	r/min (26V)	r/min (44V)		Lb	kg	
47BTYSB20T2	10	20	7.4	14.8	260	455	23.6	5.6	2.54	
47BTYSB30T3	15	30	11.1	22.1	188	329	23.3	5.6	2.54	
47BTYSB40T4	20	40	14.8	29.5	141	247	29.9	6.4	2.90	

General:

All tools must be used with an approved Cleco tightening controller or suitable PC software.

Battery weights: 26 V Li-Ion 1.1lbs. (0.50kg), 44 V Li-Ion 1.9 lbs. (0.85kg).

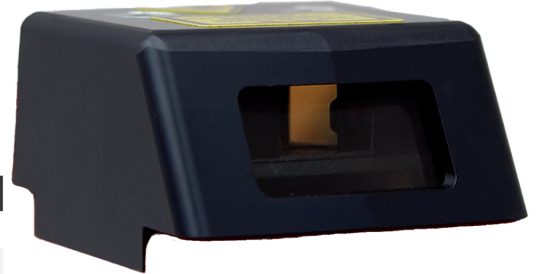
The 44 V battery is 19mm/.705" shorter than the 26V battery.

Extra Equipment: Scanner, sockets, batteries, and chargers must be ordered separately.

Barcode Scanner for Platform & LiveWire 2 Tools

- Traceability - Link your rundown results to a serial number or VIN directly from the tool
- Compact - Eliminate external barcode scanners on the line

Model	Description
937240PT	Barcode Scanner Class 2 for LiveWire 2 and Platform tools
943045PT	2-D LED lightbar, green, IEC 60825: Class 2
962034PT	2-D Laser crosshair, IEC 60825: Class 2



Gyroscope for Platform & LiveWire 2 Tools

- Accurate - Eliminate operator influence and improve your CP/CPK by using an added gyroscope on the tool
- Compact - Gyroscope module is added directly to the top of the tool in a small package

Model
942039PT



LiveWire 44V Li-ion Battery

- 2.0 Ah High capacity battery
- Up to 83% faster vs. 26 V battery
- Charge level indicator on battery
- Automatic and manual deep sleep mode
- LCD Display indicating battery charge level and total charge cycles
- Single tab, one-hand removal

Model	Weight		Width	Depth
	Lb	kg	mm	mm
961102PT	2.2	1.01	81	153



LiveWire Batteries & Chargers

Model	Weight (kg)	Width	Depth
	kg	mm	mm
961101PT	0.69	81	122



LiveWire Battery Chargers

- Battery charger for 26V, 44V and dual charger
- Dual charger auto sensing 26V/44V technology
- 1 hour charge time
- Power and status LEDs

Model	Weight (kg)	Width	Depth
	kg	mm	mm
935391		130	210
962085PT	0.82	130	210



Vmax PM48/PM48-LAN Power Module

- Provides a constant power source with speeds matching that of the 44 V battery
- Auto sensing input - (85 - 275 VAC)
- Power and status LEDs
- Electronic circuit protection



Vmax Tool Cable

Model	Weight		Width		Depth		Length	
	Lb	kg	in	mm	in	mm	in	mm
961350PT	6.8	3.10	9.4	240	5.9	150	4.7	120

2.4-5GHz Dual Band Access Point - NA

LiveWire Dual Band Access Points

- Industrial access point with up to 300 mbps speed on both 2.4 and 5.0 GHz
- Dual band allows great flexibility in a plant

Model
544249PT
961390
961453PT

Radio Range: 30-50 meters (XBEE 30 meters max.) IEEE 802.11 a/b/g (depending on tool)
Max Tools: 16 (Contact Regional Support Center for requirements greater than 10)



Protective Tool Covers

- Scratch and impact covers protect your tool and your workpiece



Model

936424PT

936489PT

937210PT

937704PT

937706PT

937708PT

937711PT

Protective Tool Covers - EU

- Scratch and impact covers protect your tool and your workpiece



Model

936382

936383

936384

936385PT

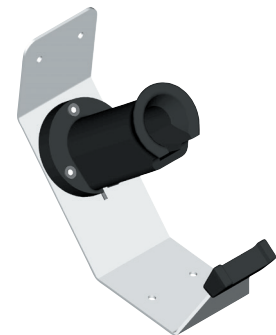
936386PT

936387

LiveWire Tool Holders & Controller Pairing Cords

- Tool holders with and without IRDA controller pairing devices built in

Model	Description	Length	Length
		ft	m
935144	Tool holder for pistol grip tools incl. IrDA		
935170	Infrared interface with cable	3.3	1
935290	Tool holder for right angle tools up to 50 Nm incl. IrDA		
935395	Tool holder for right angle tools up to 50 Nm		
935396	Tool holder for pistol grip tools		
935998	Tool holder for right angle tools from 70 Nm		
935999	Tool holder for right angle tools from 70 Nm incl. IrDA		



Tightening solutions for every application.



CLECO NEOTEK - 1 MILLION **ACCURATE, REPEATABLE, MAINTENANCE-FREE** CYCLES.

Engineered to last also means engineered to perform. Precision-hardened and ground spiral cut bevel and pinion gears equals zero preventative maintenance for 1 million cycles.

By providing class-leading repeatability of 2.0 Cm/Cmk @ $\pm 7\%$, NeoTek™ is not only maintenance free, but worry free. The 1,000,000th rundown will be as secure as the first.





Cleco Corded Electric Nutrunners - the next generation of **smart tool solutions**.

Our corded electric assembly tools offer increased productivity, improved quality, and reduced downtime with real-time, data driven results for those assembly applications in which safety is critical.

Cost-effective solutions for safety-critical applications.

Cleco 30-70 series corded assembly tools are driven by a maintenance-free brushless motor. This motor technology coupled with our high-resolution resolved offers full range control for safety critical joints. The 30-70 series tools offer industry-proven gear trains for outstanding, durable performance.

Cleco 30-70 series nutrunners provide a unique modular assembly design for ease of repair. The on-board intelligent memory chip records tool set-up values and counts cycles for maintenance scheduling to prevent costly production downtime.



Workstation control with global integration.

The Cleco Hybrid Controller features a large touchscreen with an intuitive software interface that supports industry standard protocols, fieldbus communication, and the ability to manage up to 16 tools, cordless and corded.

Programming can be done directly from the controller or via a remote network connection, and the configurable architecture allows easy integration with your MES system.

Cost effectiveness is increased by simplifying system installation and decreasing complex process modifications.

NeoTek - 30 and 50 Series - Corded Electric - Transducer Control (0.9-84Nm) - Pistol

Ergonomic grip and light weight reduces operator fatigue to increase productivity.

- 1 Million Cycles Maintenance Free
- Repeatability & Accuracy with 2.0 Cm/Cmk at +/- 7%
- Configurable LED light rings
- Tactile & Audible Operator Feedback
- Programmable Multi-function Buttons



Model	Torque Range				Weight		Length	Side to Center
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	Lb	kg	in	in
30EPN05BD2	0.9	4.7	0.66	3.47	2.05	0.93	7.76	0.64
30EPN05BDQ	0.9	4.7	0.66	3.47	2.01	0.91	8.27	0.64
30EPN12EAQ	3.9	11.6	2.88	8.56	2.20	1.00	9.02	0.64
30EPN12FA3	3.9	11.6	2.88	8.56	2.16	0.98	8.43	0.64
30EPN19FB3	3.9	19.0	2.88	14.01	2.20	1.00	8.43	0.64
30EPN26FB3	5.1	26.0	3.76	19.18	2.20	1.00	8.43	0.64
50EPN28FD3	5.6	28.0	4.13	20.65	3.48	1.58	10.08	0.64
50EPN43GD3	9.0	43.0	6.64	31.72	3.64	1.65	10.24	0.74
50EPN65HD4	14.0	66.0	10.33	48.68	4.72	2.14	11.34	0.87
50EPN85JD4	17.0	84.0	12.54	61.96	4.89	2.22	11.89	0.87
50EPN125KD4	25.0	123.0	18.44	90.72	5.78	2.62	12.32	1.10

NeoTek - 30 and 50 Series - Corded Electric - Transducer Control - Right Angle (1.3-205 Nm)

1 million cycles maintenance free and customizable features to fit any application. Light weight and ergonomic design for applications up to 205 Nm.

- Engineered to provide 1 million cycles maintenance-free
- Repeatability & accuracy of 2.0 Cm/Cmk at +/- 7%
- 1.3 Nm to 205Nm Torque range
- 3/8, 1/2" and 3/4" square output drive
- Configurable LED light ring



Model	Torque Range				Weight		Length	Side to Center	Head Height
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	Lb	kg	in	in	in
30EAN06EA3	1.3	6	.9	4.4	2.5	1.13	14.96	.48	1.42
30EAN12EA3	2.6	12	1.9	8.8	2.5	1.14	14.96	.48	1.42
30EAN21FA3	4.4	21	3.2	15.4	2.9	1.32	16.06	.65	1.58
30EAN28FA3	5.7	28	4.2	20.6	2.9	1.32	16.06	.65	1.58
50EAN30FA3	6.0	30	4.4	22.1	3.5	1.60	17.68	.65	1.58
50EAN39GA3	8.0	39	5.9	28.7	3.9	1.77	18.19	.66	1.76
50EAN59HA3	12	59	8.8	43.5	4.3	1.94	18.27	.75	2.02
50EAN80JA4	16	80	11.8	59.0	4.8	2.17	18.62	.90	1.91
50EAN110KA4	22	109	16.2	80.3	6.5	2.76	19.41	1.00	2.37
50EAN150KB4	32	150	23.6	110.6	8.3	3.75	22.01	1.03	2.54
50EAN205NA6	41	205	30.2	151.2	8.7	3.93	22.13	1.16	2.44

NeoTek - 30 and 50 Series Corded Electric - Transducer Control - Inline (.9-84Nm)

High speed and accuracy for applications up to 26 Nm. Mounts easily with machined splines and locknut.

- 1 Million Cycles Maintenance Free
- Repeatability & Accuracy with 2.0 Cm/Cmk at +/- 7%
- Configurable LED light rings
- Tactile & Audible Operator Feedback
- Programmable Multi-function Buttons



Model	Torque Range				Weight		Length	Side to Center
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	Lb	kg	in	in
30ESN05BD2	0.9	4.7	0.66	3.47	2.12	0.96	13.27	0.64
30ESN05BDQ	0.9	4.7	0.66	3.47	2.12	0.96	13.46	0.64
30ESN12EAQ	3.9	11.6	2.88	8.56	2.34	1.06	14.21	0.64
30ESN12FA3	3.9	11.6	2.88	8.56	2.34	1.06	14.05	0.64
30ESN19FB3	3.9	19.0	2.88	14.01	2.34	1.06	14.05	0.64
30ESN26FC3	5.1	26.0	3.76	19.18	2.34	1.06	14.05	0.64
50ESN28FD3	5.6	28.0	4.13	20.65	2.98	1.35	15.70	0.64
50ESN43GD3	9.0	43.0	6.64	31.72	3.64	1.65	15.86	0.74
50ESN65HD4	14.0	66.0	10.33	48.68	4.19	1.90	17.12	0.86
50ESN85JD4	17.0	84.0	12.54	61.96	4.41	2.00	17.67	0.86
50ESN125KD4	25.0	123.0	18.44	90.72	5.29	2.40	18.11	1.10

NeoTek - 70 Series - Corded Electric - Transducer Control - (23-4000 Nm) Inline and Right Angle

Durability and unsurpassed RPM for high torque applications up to 4000 Nm

- Repeatability & Accuracy with 2.0 Cm/Cmk at +/- 7%
- Configurable LED light rings
- Flexible high torque solutions
- 60% speed increase over current legacy series tools



Model	Torque Range				Weight		Length	Side to Center
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	Lb	kg	in	in
70ESN95ND6	23.0	93.0	16.96	68.59	11.46	5.20	22.28	1.30
70ESN130ND6	31.0	124.0	22.86	91.46	11.46	5.20	22.28	1.30
70EAN155NA6	39.0	156.0	28.76	115.06	14.33	6.50	25.07	1.16
70ESN185ND6	46.0	184.0	33.9	135.7	11.46	5.20	22.28	1.30
70EAN205NA6	52.0	205.0	38.35	151.20	14.33	6.50	25.07	1.16
70EAN240PA6	60.0	239.0	44.25	176.28	15.43	7.00	25.78	1.49
70ESN245ND6	61	245.0	45.73	180.70	11.46	5.20	22.28	1.30
70EAN350PA6	88.0	350.0	64.91	258.15	15.43	7.00	25.78	1.49
70ESN355SD8	89.0	354.0	65.6	261.0	16.76	7.60	24.01	1.49
70ESN475SD8	118.0	473.0	87.03	348.87	16.76	7.60	24.01	1.49
70EAN600SA8T	125.0	600.0	92	443	23.9	10.8	26.50	2.10
70ESN700SD8	175.0	700.0	129.07	516.29	16.76	7.60	24.01	1.49
70EAN800TA8MT	200.0	800.0	148	590	25.5	11.6	25.90	1.60
70ESN850SD8	213.0	850.0	157.10	626.93	16.76	7.60	24.01	1.49
70EAN1500TA8MT	375.0	1500.0	277	1106	25.5	11.6	25.90	1.60
70ESN1500TA8T	425.0	1500.0	313.0	1106	19.2	8.70	24.40	1.60
70EAN2000TB8MT	500.0	2000.0	369	1475	32.4	14.7	26.60	2.30
70ESN2000TA8T	775.0	2000.0	572.0	1475	19.2	8.70	24.40	1.60
70EAN4000UA12MT	1250.0	4000.0	922	2950	41.6	18.8	26.60	2.30
70ESN4000UA12MT	1250.0	4000.0	922.0	2950	28.3	12.80	24.20	2.3

Note: 70 Series Tools require a 220/230 power supply to the controller

NeoTek - 30 Series - Corded Electric - Transducer Control - Retractable Spindle (2.6-30 Nm)

- For fixtured applications to ensure bolt engagement
- Configurable LED light rings
- Programmable multi-function buttons
- Brushless Motor
- Transducer Control

Model	Torque Range				Weight		Length	Side to Center
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	Lb	kg	in	in
30EAR12S131	2.6	12.1	1.9	8.9	3.61	1.64	16.2	0.54
30EAR25S131	5.4	25.0	4.0	18.4	4.01	1.82	16.2	0.54
30EAR30S131	7.0	30.0	5.2	22.1	4.01	1.82	16.2	0.54



NeoTek - 50 Series - Corded Electric - Transducer Control - Retractable Spindle (8-235 Nm)

<STEPREF A="ATT17711" O="SG_738750" OT="Product" VC="EN-US All USA" VO="735745" W="Main" />

- For fixtured applications to ensure bolt engagement
- Configurable LED light rings
- Programmable multi-function buttons
- Brushless Motor
- Transducer Control

Model	Torque Range				Weight		Length	Side to Center
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	Lb	kg	in	in
50EAR39S231	8.0	39.0	5.9	28.8	5.00	2.20	19.0	0.69
50EAR55S231	12.0	55.0	8.9	40.6	5.38	2.37	19.0	0.69
50EAR56S341	11.0	56.0	8.1	41.3	5.60	2.51	20.2	0.67
50EAR85S341	17.0	84.0	12.5	62.0	5.98	2.68	20.2	0.87
50EAR100S341	20.0	100.0	14.8	73.8	6.48	2.91	20.2	0.87
50EAR165S461	33.0	165.0	24.3	121.7	7.68	6.81	21.7	1.06
50EAR235S461	49.0	235.0	36.1	173.3	8.67	8.46	22.3	1.06



NeoTek - 30 Series - Corded Electric - Transducer Control Flush Socket (2.6-30 Nm)

- For low clearance applications
- Configurable LED light rings
- Programmable multi-function buttons
- Brushless Motor
- Transducer Control



Model	Torque Range				Weight		Length	Side to Center
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	Lb	kg	in	in
30EFN12F1	2.6	12.1	1.9	8.9	3.61	1.64	16.2	0.54
30EFN25F1	5.4	25.0	4.0	18.4	4.01	1.82	16.2	0.54
30EFN30F1	8.0	30.0	5.9	22.1	4.01	1.82	16.2	0.54

NeoTek - 50 Series - Corded Electric - Transducer Control Flush Socket (8-235 Nm)

- For low clearance applications
- Configurable LED light rings
- Programmable multi-function buttons
- Brushless Motor
- Transducer Control



Model	Torque Range				Weight		Length	Side to Center
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	Lb	kg	in	in
50EFN39F2	8.0	39.0	5.9	28.8	6.00	2.70	19.0	0.69
50EFN55F2	12.0	55.0	8.9	40.6	6.38	2.87	19.0	0.69
50EFN56F3	11.0	56.0	8.1	41.3	5.60	2.51	20.2	0.88
50EFN85F3	17.0	84.0	12.5	62.0	5.98	2.68	20.2	0.88
50EFN100F3	20.0	100.0	14.8	73.8	6.48	2.91	20.2	0.88
50EFN165F4	33.0	165.0	24.3	121.7	7.68	3.49	21.7	1.06
50EFN235F4	49.0	235.0	36.1	173.3	9.87	4.48	22.3	1.06

NeoTek - 50 Series - Corded Electric - Transducer Control Tubenut (7.6-40 Nm)

- For fluid line applications
- Configurable LED light rings
- Programmable multi-function buttons
- Brushless Motor
- Transducer Control

Model	Torque Range				Weight		Length
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	Lb	kg	in
50ETN20T2	7.6	20.0	5.6	14.8	4.13	1.90	18.4
50ETN30T3	11.0	30.0	8.1	22.1	4.23	1.90	18.0
50ETN40T4	14.0	40.0	10.3	29.5	5.03	2.20	19.0



NeoTek - 50 Series - Corded Electric - Transducer Control Hold-n-Drive (11-235 Nm)

- For specialized frame and suspension applications
- Configurable LED light rings
- Programmable multi-function buttons
- Brushless Motor
- Transducer Control

Model	Torque Range				Weight		Length	Side to Center
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	Lb	kg	in	in
50EHN56H	11.0	56.0	8.1	41.3	7.50	3.37	20.3	1.06
50EHN85H	17.0	84.0	12.5	62.0	7.88	3.54	20.3	1.06
50EHN100H	20.0	100.0	14.8	73.8	7.08	3.20	20.3	1.06
50EHN165H	33.0	165.0	24.3	121.7	6.48	2.95	21.7	1.06
50EHN235H	49.0	235.0	36.1	173.3	8.67	3.94	22.3	1.06



NeoTek - 50 Series - Corded Electric - Transducer Control Crowfoot (8-30 Nm)

- For hard to reach areas with limited access
- Configurable LED light rings
- Programmable multi-function buttons
- Brushless Motor
- Transducer Control

Model	Torque Range				Weight		Length	Side to Center
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	Lb	kg	in	in
50ECN30C1	8.0	30.0	5.9	22.1	4.73	1.90	20.7	0.63
50ECN30C3	8.0	30.0	5.9	22.1	4.73	1.90	20.4	0.63



NeoTek Tool Cable

- Use to connect a 30/50/70 Series tool to an mPro400GCD-P controller.
- Designed for maximum life.
- Quarter-Turn connection.
- Ultra-tight 30mm bend radius.
- Cycle counter memory.

Model	Description	Weight		Length	
		Lb	kg	ft	m
961560-030	3 Meter NeoTek Tool Cable	1.7	0.79	9.8	3
961560-060	6 Meter NeoTek Tool Cable	2.7	1.23	19.7	6
961560-080	8 Meter NeoTek Tool Cable	3.4	1.52	26.2	8
961560-100	10 Meter NeoTek Tool Cable	3.9	1.81	32.8	10



NeoTek Tool Extension Cables

- Used in applications requiring cable lengths greater than 10 meters.

Model	Description	Weight		Length	
		Lb	kg	ft	m
961923-050	5 Meter NeoTek Extension Cable	3.9	1.79	16.5	5
961923-100	10 Meter NeoTek Extension Cable	7.4	3.34	32.9	10
961923-150	15 Meter NeoTek Extension Cable	10.8	4.89	49.2	15
961923-200	20 Meter NeoTek Extension Cable	14.2	6.44	65.6	20
961923-250	25 Meter NeoTek Extension Cable	17.6	7.99	82	25



Tool Cable Adaptor

- Used to connect 67 series tools as well as older 17/47 Series corded tools to an mPro400GCD controller
- Allows easy upgrade to newest controller technology

Model	Description
961789PT	Y-Cable Adapter for 17/47/67 Series tools



NeoTek Locking Ring

Model
943527PT

NeoTek Camera Scanner

- Scans 1D and 2D barcodes
- Scan images from paper documents as well as screens and monitors
- Camera technology eliminates traditional laser barcode scanners

Model	Description
937731PT	For 30/50 Series Right Angle and Inline Tools
942391PT	For 70 Series Right Angle and Inline Tools
T55-3000018	For 30 Series Pistol Tools
T55-3000019	For 50 Series Pistol Tools



NeoTek Tool Light

- Ultra-bright LEDs
- Fully programmable
- High, medium, and low intensity light beam

Model	Description
943455PT	For 30/50 Series Right Angle and Inline Tools
943462PT	For 30/50 Series Right Angle and Inline Tools
943464PT	For 70 Series Right Angle and Inline Tools



NeoTek Gyroscope

The Gyroscope module allows angle correction for hand-held tightening equipment without support.

- Up to now, angle controlled tightening strategies have required a reaction arm to avoid a change of the reference angle during a rundown.
- This support is no longer required due to the corrective function of the gyroscope module. the potential influence of an operator to the absolute angle is compensated by the module.

Model	Description
942396PT	For 30/50 Series Right Angle and Inline Tools 30Nm
943684PT	For 50 Series Right Angle and Inline Tools
943685PT	For 70 Series Right Angle and Inline Tools
T55-3000020	For 30 Series Pistol
T55-3000021	For 50 Series Pistol



NeoTek Reaction bar

- Improved operator safety
- Keeps hands away from assembly
- One hand operation

Model	Description
201034	For 70ESN95ND6/70ESN130ND6/70ESN185ND6/70ESN245ND6
301934PT	For 30ESN12EAQ/30ESN12FA3/30EPN12EAQ/30EPN12FA3
46036202	For 70ESN355SD8/70ESN475SD8/70ESN700SD8/700ESN850SD8
48047128	For 50ESN65HD4/50ESN85JD4/50ESN125KD4/50EPN65HD4/50EPN85JD4/50EPN125KD4
542127	For 30ESN19FB3/30ESN26FC3/50ESN28FD3/50ESN43GD3/30EPN19FB3/30EPN26FC3/50EPN28FD3/50EPN43GD3
T50-3000064	For 50EAN59HA3
T50-3000065	For 50EAN80JA4
T50-3000066	For 50EAN110KA4
T50-3000067	For 50EAN150KB4
T50-3000068	For 50EAN205NA6

NeoTek Suspension Bail

- For use with spring balancer
- Improved operator ergonomics

Model	Description
T50-3000048	30/50 Series Fixed Suspension Bail (excl. pistols)
T50-3000060	30/50 Series Fixed Offset Suspension Bail (excl. pistols)
T50-3000061	30/50 Series Swivel Offset Suspension Bail (excl. pistols)
T50-3000063	30/50 Series Swivel Suspension Bail (excl. pistols)



NeoTek Body Extension

- For hard to reach applications.
- Reduces reaction force to the operator.

Model	Description
T50-3000069	For 50EAN110KA4
T50-3000070	For 50EAN150KB4/50EAN205NA6
T50-3000071	For 50EAN80JA4
T50-3000072	For 50EAN59HA3

Suspension Bail

- For use with spring balancer
- Improved operator ergonomics

Model	Description
1110909	18/48 Series suspension bail (excl. pistols)
942045PT	Standard tool suspension bail for LiveWire 2 L Series
942185PT	Rotating suspension bail for LiveWire 2 L Series
S387983	Rotating suspension bail for right angle nutrunner (not for LiveWire 2 L Series)



19 Series - Angle Nutrunner - Clutch Shut-Off Lever Start - Collar Reverse

0.3 - 8.3 ftlbs / 0.5 - 11.3Nm



Model Number Example

34	R	A	A	23	A	M	3
Series 19 34	Rotation R-Reversible						Square Drive 2 – 1/4" (AL only) 3 – 3/8" 4 – 1/2" (AZ only)
Tool Style A – Right Angle							Angle Head Size L – Light Duty M – Medium Duty H – Heavy Duty X – Extra Heavy Duty Z – Super Heavy Duty
Torque Control A – Clecomatic S – Stall							Tool Termination A Angle head
Maximum Torque Nm (Rounded to the nearest Nm)							

Model	Torque Range				Free Speed	Length	Weight		Head Height	Side to Center	Air Consumption	Air Inlet Size
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	r/min	in	Lb	kg	in	in	Scfm	in
19RAA02AM2	0.5	2.1	0.3	1.5	2400	11.9	1.7	0.77	1.06	0.360	11	1/8
19RAA02AH2	0.5	2.4	0.3	1.7	2100	12.5	1.81	0.82	1.19	0.50	11	1/8
19RAA02AH3	0.5	2.4	0.3	1.7	2100	12.5	1.81	0.82	1.19	0.50	11	1/8
19RAA03AM2	0.6	3.1	0.4	2.2	1650	12.2	1.81	0.82	1.06	0.360	11	1/8
19RAA03AH2	0.7	3.4	0.5	2.5	1450	12.7	1.81	0.82	1.19	0.50	11	1/8
19RAA03AH3	0.7	3.4	0.5	2.5	1450	12.7	1.81	0.82	1.19	0.50	11	1/8
19RAA04AM2	1.4	4.7	1	3.4	950	12	1.7	0.77	1.06	0.360	11	1/8
19RAA05AM2	1.4	5.7	1	4.2	570	12.4	1.81	0.82	1.06	0.360	11	1/8
19RAA06AH2	1.5	6	1.1	4.4	850	12.5	1.81	0.82	1.19	0.50	11	1/8
19RAA06AH3	1.5	6	1.1	4.4	850	12.5	1.81	0.82	1.19	0.50	11	1/8
19RAA07AH2	1.5	6.8	1.1	5	500	12.9	1.9	0.86	1.19	0.50	11	1/8
19RAA07AH3	1.5	6.8	1.1	5	500	12.9	1.9	0.86	1.19	0.50	11	1/8
19RAA09AH2	2.0	8.5	1.4	6.2	500	12.9	1.9	0.86	1.19	0.50	11	1/8
19RAA09AH3	2.0	8.5	1.4	6.2	500	12.9	1.9	0.86	1.19	0.50	11	1/8
19RAA11AH2	2.5	11.3	1.8	8.3	340	12.3	2.09	0.95	1.19	0.50	11	1/8
19RAA11AH3	2.5	11.3	1.8	8.3	340	12.3	2.09	0.95	1.19	0.50	11	1/8
19RAA12AH2	2.5	11.3	1.8	8.3	200	12.9	1.9	0.86	1.19	0.50	11	1/8
19RAA12AH3	2.5	11.3	1.8	8.3	200	12.9	1.9	0.86	1.19	0.50	11	1/8

Tool performance rated at 90 psi (620kPa) air pressure.

Standard Equipment:

Manual and all torque springs required to meet indicated torque specification

34 Series - Angle Nutrunner - Clutch Shut-Off Lever Start - Collar Reverse

4 - 55 ftlbs / 8 - 75 Nm

- Lightweight, ergonomic, and easy to service
- Indexable angle head for added versatility
- Durable Clecomatic Clutch delivers best-in-class torque repeatability and long calibration cycle
- Heavy-duty Cleco motor is the industry standard for reliability
- Oil-less blades reduce oil mist in work area



Model Number Example

Series	Rotation	Tool Style	Torque Control	Maximum Torque Nm	Square Drive	Angle Head Size	Tool Termination
34	R	A	A	23	A	M	3
19 34	R-Reversible	A - Right Angle	A - Clecomatic S - Stall	(Rounded to the nearest Nm)	2 - 1/4" (AL only) 3 - 3/8" 4 - 1/2" (AZ only)	L - Light Duty M - Medium Duty H - Heavy Duty X - Extra Heavy Duty Z - Super Heavy Duty	A Angle head

Model	Torque Range				Free Speed	Length	Weight		Head Height	Side to Center	Air Consumption	Air Inlet Size
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	r/min	in	Lb	kg	in	in	Scfm	in
34RAA08AL3	5.4	8.1	4.0	6.0	2060	14.5	2.69	1.22	1.08	0.47	0.96	3/8
34RAA11AL3	6.8	10.8	5.0	8.0	1675	14.5	2.69	1.22	1.08	0.47	0.96	3/8
34RAA15AM3	9.5	14.9	7.0	11.0	1185	14.6	2.9	1.3	1.16	0.52	0.96	3/8
34RAA26AH3	13.6	25.8	10.0	19.0	710	15.4	3.2	1.45	1.22	0.57	0.96	3/8
34RAA28AH3	13.6	27.1	10.0	20.0	580	15.4	3.31	1.50	1.16	0.52	0.96	3/8
34RAA33AX3	16.3	32.5	12.0	24.0	545	15.5	3.51	1.59	1.36	0.67	0.96	3/8
34RAA37AX3	19	36.6	14.0	27.0	480	15.6	3.4	1.54	1.36	0.67	0.96	3/8
34RAA47AX3	23.0	47.0	17.0	35.0	385	15.6	3.4	1.54	1.36	0.67	0.96	3/8
34RAA68AZ3	34.0	68.0	25.0	50	255	16.2	3.7	1.68	1.60	0.7	0.96	3/8
34RAA68AZ4	34.0	68.0	25.0	50	255	16.2	3.7	1.77	1.60	0.7	0.96	3/8
34RAA75AZ3	38.0	75.0	28.0	55	155	17	3.9	1.77	1.60	0.7	0.96	3/8
34RAA75AZ4	38.0	75.0	28.0	55	155	17	3.9	1.77	1.60	0.7	0.96	3/8

General: Tool performance rated at 90 psi (620kPa) air pressure.

Standard Equipment:

Operating instructions & service manual

Suspension bail

Clutch adjustment tool

Optional Equipment:

Service wrench: 201898

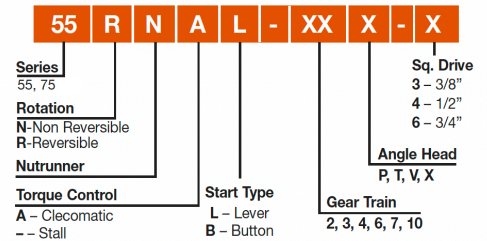
55/75 Series - Angle Nutrunner - Clutch Shut-Off Lever Start - Collar Reverse

26 - 305 ftls / 35 - 410 Nm

- Heavy-duty Cleco motor is the industry standard for reliability
- Durable Clecomatic Clutch delivers best-in-class torque repeatability and long calibration cycle
- Planetary gears designed for tool speed changes with minimal parts service and replacement
- Heavy-duty spindle bearings and splined retractable spindles reduces friction, improves torque repeatability, and prolongs life.
- External Torque Adjustment
- Rotating Exhaust Deflector



55 & 75 Model Number Example



Model	Torque Range				Free Speed	Length	Weight		Head Height	Side to Center	Air Consumption	Air Inlet Size
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	r/min	in	Lb	kg	in	in	Scfm	in
55RNAL-4P-4	35.0	73.0	26.0	54.0	330	19.1	7.4	3.35	1.63	0.72	55	1/2
55RNAL-4T-4	39.0	87.0	29.0	64.0	280	19.3	7.8	3.52	1.97	0.88	55	1/2
55RNAL-3P-4	49.0	108.0	36.0	80.0	220	19.1	7.4	3.35	1.63	0.72	55	1/2
55RNAL-3T-4	58.0	129.0	43.0	95.0	190	19.3	7.8	3.52	1.97	0.88	55	1/2
55RNAL-2T-4	68.0	170.0	50.0	125.0	140	19.3	7.8	3.52	1.97	0.88	55	1/2
75RNAL-3V-4	95.0	190.0	70.0	140.0	175	21.9	13.2	6.01	2.50	1.09	70	1/2
75RNAL-2V-4	122.0	255.0	90.0	190.0	130	21.9	13.2	6.01	2.50	1.09	70	1/2
75RNAL-3X-6	150.0	305.0	110.0	225.0	110	22.6	15	6.80	2.75	1.44	70	1/2
75RNAL-2X-6	203.0	410.0	150.0	305.0	80	22.6	15	6.80	2.75	1.44	70	1/2

General:

Tool performance data measured at 6.2 bar inlet air pressure at the air inlet tube.

Standard Equipment:

Operation and maintenance instructions

Torque reaction mounting plate (75 series)

All torque springs necessary to achieve the stated torque.

19 Series - Angle Nutrunner - Stall - Lever Start - Collar Reverse

Up to 4.6 ftlbs / 6.2 Nm

- Designed for soft-draw applications
- Torque can be adjusted by adjusting air pressure
- Compact angle head for tight access
- Lightweight, ergonomic, and easy to service



Model Number Example

Series	Rotation	Tool Style	Torque Control	Maximum Torque Nm	Square Drive	Angle Head Size	Tool Termination
19 34	R-Reverse	A - Right Angle	A - Clecomatic S - Stall	(Rounded to the nearest Nm)	2 - 1/4" (AL only) 3 - 3/8" 4 - 1/2" (AZ only)	L - Light Duty M - Medium Duty H - Heavy Duty X - Extra Heavy Duty Z - Super Heavy Duty	A Angle head

Model	Torque Range Max (nm)	Torque Range Max (ft/lb)	Free Speed	Length	Weight		Head Height	Side to Center	Air Consumption	Air Inlet Size
	Max Nm	Max Ft Lb	r/min	in	Lb	kg	in	in	Scfm	in
19RAS03AM2	3.2	2.3	1700	11.4	1.3	0.59	1.06	0.36	11	1/8
19RAS05AM2	5.2	3.8	850	10.6	1.19	0.54	1.06	0.36	11	1/8
19RAS06AH3	6.2	4.6	880	11	1.3	0.59	1.19	0.5	11	1/8

General: Tool performance rated at 90 psi (620kPa) air pressure.

Standard Equipment:

Operating instructions & service manual

Suspension bail

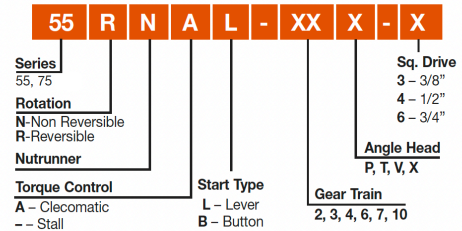
55/75 Series - Angle Nutrunner - Stall - Lever Start - Collar Reverse

Up to 325 ftlbs / 440 Nm

- Engineered for performance, durability, mounting versatility, and serviceability
- Torque can be adjusted by adjusting air pressure
- Heavy duty motor, gearing and angle head for long life
- Tool can be reversed if required
- Torque reaction plate supplied with 75 series



55 & 75 Model Number Example



Model	Torque Range Max (nm)	Torque Range Max (ft/lb)	Free Speed	Length	Weight		Head Height	Side to Center	Air Consumption	Air Inlet Size
	Max Nm	Max Ft Lb	r/min	in	Lb	kg	in	in	Scfm	in
55RNL-7T-4	55.6	41.0	490	16.1	6.1	2.78	1.63	0.72	55	1/2
55RNL-4T-4	92.0	68.0	290	16.7	6.5	2.95	1.63	0.72	55	1/2
55RNL-3T-4	135.0	100	195	16.7	6.5	2.95	1.63	0.72	55	1/2
75RNL-4V-4	142.0	105.0	280	19.4	11.4	5.16	11.4	1.09	70	1/2
55RNL-2T-4	176.0	130	145	16.7	6.5	2.95	1.63	0.72	55	1/2
75RNL-3V-4	210.0	155.0	190	19.4	11.4	5.16	11.4	1.09	70	1/2
75RNL-2V-4	278.0	205.0	140	19.4	11.4	5.16	2.50	1.09	70	1/2
75RNL-3X-6	330.0	245.0	120	20.1	13.1	5.95	2.75	1.44	70	1/2
75RNL-2X-6	440.0	325.0	90	20.1	13.1	5.95	2.75	1.44	70	1/2

GENERAL:

Tool performance data measured at 6.2 bar inlet air pressure at the air inlet tube.

STANDARD EQUIPMENT:

Operation and maintenance instructions
Torque reaction mounting plate (75 series)

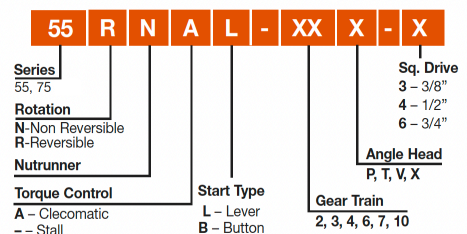
55 Series - Angle Nutrunner - Stall - Lever Start - Non-reversible

Up to 140 ftlbs / 190 Nm

- Engineered for performance, durability, mounting versatility, and serviceability
- Torque can be adjusted by adjusting air pressure
- Heavy duty motor, gearing and angle head for long life
- Non reversible prevents accidental operation of tool in reverse



55 & 75 Model Number Example



Model	Torque Range Max (nm)	Torque Range Max (ft/lb)	Free Speed	Length	Weight		Head Height	Side to Center	Air Consumption	Air Inlet Size
	Max Nm	Max Ft Lb	r/min	in	Lb	kg	in	in	Scfm	in
55NL-3T-4	149.0	110.0	290	16.7	6.4	2.89	1.97	0.88	55	1/2
55NL-2T-4	190.0	140	210	16.7	6.4	2.89	1.97	0.88	55	1/2

General:

Tool performance data measured at 6.2 bar inlet air pressure at the air inlet tube.

STANDARD EQUIPMENT:

Operation and maintenance instructions

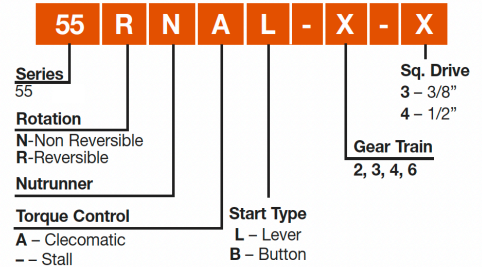
55 Series - Inline Reaction Bar Nutrunner - Lever Start - Collar Reverse

25 - 67 ftls / 34 - 91Nm - Use with Torque Reaction

- Engineered for performance, durability, mounting versatility, and serviceability
- Durable Clecomatic shut off clutch delivers best in class torque repeatability
- Heavy duty motor, gearing and clutch for long life
- Torque reaction bar supplied with tool



55 Model Number Example



Model	Torque Range				Free Speed	Length	Weight		Air Consumption	Air Inlet Size
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	r/min	in	Lb	kg	Scfm	in
55RNAL-3-4	34.0	69.0	25.0	51.0	370	16.1	6.5	2.95	55	1/2
55RNAL-2-4	46.0	91.0	30.0	67.0	270	16.1	6.5	2.95	55	1/2

General: Tool performance rated at 90 psi (620kPa) air pressure

Standard Equipment:

Operating instructions & service manual

Aluminum Torque Reaction Bar 869769

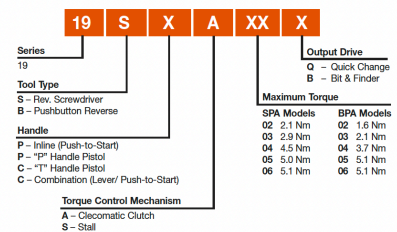
19 Series - Inline - Push-to-Start - Push Button Reverse

0.3 - 3.7ftlbs / 0.6 - 5.1Nm

- Durable Clecomatic Clutch delivers best-in-class torque repeatability and long calibration cycle
- Lightweight, ergonomic and durable handle designed with operator in mind
- Engineered to suit a wide range of applications, from high volume assembly to aerospace
- Grip material tested to withstand a range of industrial chemicals



Cleco 19 Series Inline



Model	Torque Range				Free Speed	Length	Weight		Air Consumption	Air Inlet Size
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	r/min	in	Lb	kg	Scfm	in
19BPA02Q	0.6	2.1	0.3	1.6	2300	9.3	1.41	0.64	11	1/8
19BPA03Q	0.6	2.9	0.3	2.2	1600	9.3	1.41	0.64	11	1/8
19BPA04Q	1.1	4.5	0.3	3.3	920	9.1	1.3	0.59	11	1/8
19BPA05Q	1.1	5.1	0.3	3.7	560	9.5	1.5	0.68	11	1/8
19BPA06Q	1.1	5.1	0.3	3.7	220	9.5	1.5	0.68	11	1/8

General: 90 psi (620kPa) required for maximum rated torque.

Standard Equipment:

Operating instructions & service manual

Suspension bail

All torque springs required to meet indicated torque.

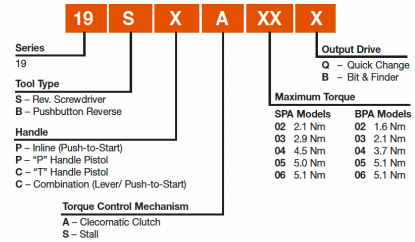
19 Series - Inline - Push-to-Start - Collar Reverse

0.3 - 3.7ftlbs / 0.6 - 5.1Nm

- Durable Clecomatic Clutch delivers best-in-class torque repeatability and long calibration cycle
- Lightweight, ergonomic and durable handle designed with operator in mind
- Engineered to suit a wide range of applications, from high volume assembly to aerospace
- Grip material tested to withstand a range of industrial chemicals



Cleco 19 Series Inline



Model	Torque Range				Free Speed r/min	Length in	Weight		Air Consumption Scfm	Air Inlet Size in
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb			Lb	kg		
19SPA02Q	0.6	2.1	0.3	1.6	2800	9.1	1.41	0.64	11	1/8
19SPA03Q	0.6	2.9	0.3	2.2	1900	9.3	1.41	0.64	11	1/8
19SPA04Q	1.1	4.5	0.3	3.3	1100	9.1	1.3	0.59	11	1/8
19SPA05Q	1.1	5.1	0.3	3.7	660	9.5	1.5	0.68	11	1/8
19SPA06Q	1.1	5.1	0.3	3.7	260	9.5	1.5	0.68	11	1/8

General: 90 psi (620kPa) required for maximum rated torque.
Standard Equipment:
Operating instructions & service manual
Suspension bail
All torque springs required to meet indicated torque.

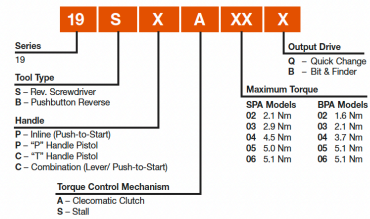
19 Series - Inline - Push and Lever Start - Collar Reverse

0.3 - 3.7ftlbs / 0.6 - 5.1Nm

- Durable Clecomatic Clutch delivers best-in-class torque repeatability and long calibration cycle
- Lightweight, ergonomic and durable handle designed with operator in mind
- Engineered to suit a wide range of applications, from high volume assembly to aerospace
- Grip material tested to withstand a range of industrial chemicals



Cleco 19 Series Inline



Model	Torque Range				Free Speed r/min	Length in	Weight		Air Consumption Scfm	Air Inlet Size in
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb			Lb	kg		
19SCA02Q	0.6	2.1	0.3	1.6	2800	9.8	1.5	0.68	11	1/8
19SCA03Q	0.6	2.9	0.3	2.2	1900	10	1.5	0.68	11	1/8
19SCA04Q	1.1	4.5	0.33	3.3	1100	9.8	1.5	0.68	11	1/8
19SCA05Q	1.1	5.1	0.3	3.7	660	10.2	1.61	0.73	11	1/8
19SCA06Q	1.1	5.1	0.3	3.7	260	10.2	1.61	0.73	11	1/8

General: 90 psi (620kPa) required for maximum rated torque.
Standard Equipment:
Operating instructions & service manual
Suspension bail
All torque springs required to meet indicated torque.
Lever Push-to-Start models include kit to convert to lever only. (301409)

8 Series - Inline - Push-to-Start - Push Button Reverse

0.5 - 6.2 ftlbs / 0.8 - 8.5 Nm

- Compact design increases productivity, saves weight, and is easy to integrate into any assembly environment
- Dependable Clecomatic clutch delivers consistent torque accuracy and repeatability
- Cleco motor is the industry standard for durability
- Easy to repair and maintain, with high parts interchangeability to other Cleco products



Model	Torque Range				Free Speed	Length	Weight		Side to Center	Air Consumption	Air Inlet Size
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	r/min	in	Lb	kg	in	Scfm	in
8RSA-40BQ	0.8	2.8	0.5	2	3200	8.9	2.12	0.96	0.77	19.1	1/4
8RSA-30BQ	0.8	3.4	0.5	2.5	2500	8.9	2.12	0.96	0.77	19.1	1/4
8RSA-20BQ	0.8	4.5	0.5	3.3	1800	8.9	2.12	0.96	0.77	19.1	1/4
8RSA-10BQ	0.8	7.3	0.5	5.3	800	9.6	2.38	1.08	0.77	19.1	1/4
8RSA-5BQ	0.8	8.5	0.5	6.2	400	9.6	2.38	1.08	0.77	19.1	1/4
8RSA-7BQ	0.8	8.5	0.5	6.2	550	9.6	2.38	1.08	0.77	19.1	1/4

General: 90 psi (620kPa) required for maximum rated torque.

Standard Equipment:

Operating instructions & service manual

Suspension bail.

All torque springs required to meet indicated torque.

88 Series - Inline - Push and Lever Start - Push Button Reverse

1.2 - 13.2 ftlbs / 1.7 - 18Nm

- Compact design increases productivity, saves weight, and is easy to integrate into any assembly environment
- Dependable Clecomatic clutch delivers consistent torque accuracy and repeatability
- Cleco motor is the industry standard for durability
- Easy to repair and maintain, with high parts interchangeability to other Cleco products
- 5C-3 3/8" Square or 5CQ 1/4" Quick Release Output



Model	Torque Range				Free Speed	Length	Weight		Air Consumption	Air Inlet Size
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	r/min	in	Lb	kg	Scfm	in
88RSAL-5C-3	1.7	18	1.2	13.2	400	11.1	3.11	1.41	19.1	1/4
88RSAL-5CQ	1.7	18	1.2	13.2	400	11.1	3.11	1.41	19.1	1/4

General: 90 psi (620kPa) required for maximum rated torque.

Weight does not include side handle.

Standard Equipment:

Operating instructions & service manual

Suspension bail

Side handle 861006.

All torque springs required to meet indicated torque

88 Series - Inline - Push-to-Start - Push Button Reverse

1.2 - 13.2 ftlbs / 1.7 - 18Nm

- Compact design increases productivity, saves weight, and is easy to integrate into any assembly environment
- Dependable Clecomatic clutch delivers consistent torque accuracy and repeatability
- Cleco motor is the industry standard for durability
- Easy to repair and maintain, with high parts interchangeability to other Cleco products
- C-3 3/8" Square or CQ 1/4" Quick Release Output



Model	Torque Range				Free Speed	Length	Weight		Side to Center	Air Consumption	Air Inlet Size
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	r/min	in	Lb	kg	in	Scfm	in
88RSA-7C-3	1.7	10	1.2	7.3	550	9.5	2.62	1.19	0.77	19.1	1/4
88RSA-7CQ	1.7	10	1.2	7.3	550	9.5	2.62	1.19	0.77	19.1	1/4
88RSA-5C-3	1.7	18	1.2	13.2	400	9.5	2.62	1.19	0.77	19.1	1/4
88RSA-5CQ	1.7	18	1.2	13.2	400	9.5	2.62	1.19	0.77	19.1	1/4

General: 90 psi (620kPa) required for maximum rated torque.

Weight does not include side handle.

Standard Equipment:

Operating instructions & service manual

Suspension bail

Side handle 861006 on models above 8 ft lbs torque cap.

All torque springs required to meet indicated torque.

19 Series - Pistol Grip - "T" Handle - Push and Trigger Start

0.4 - 6.5 ftlbs / 0.6 - 8.9 Nm

- Durable Clecomatic Clutch delivers best-in-class torque repeatability and long calibration cycle
- 2 grip sizes available for added versatility
- Reverse lever can be rotated to accommodate left-or-right-handed operators
- Engineered to suit a wide range of applications, from high volume assembly to aerospace
- T Handle balanced for high volume assembly cell and line production of machine screws



Model	Torque Range				Free Speed r/min	Length in	Weight		Air Consumption Scfm	Air Inlet Size in
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb			Lb	kg		
19TCA02Q	0.6	2.1	0.4	1.5	2800	8	1.43	0.65	11	1/4
19TCA03Q	0.6	2.9	0.4	2.1	1900	8.2	1.54	0.70	11	1/4
19TCA04Q	1.1	4.5	0.8	3.3	1100	8	1.54	0.70	11	1/4
19TCA05Q	1.1	5.1	0.8	3.7	660	8.4	1.54	0.70	11	1/4
19TCA06Q	1.1	5.1	0.8	3.7	260	8.4	1.54	0.70	11	1/4
19TCA07Q	1.7	6.8	1.2	5	660	8.4	1.54	0.70	11	1/4
19TCA09Q	1.7	8.9	1.2	6.5	470	9.3	1.72	0.78	11	1/4

General: 90 psi (620kPa) required for maximum rated torque.

Standard Equipment:

Operating instructions & service manual

Suspension bail

All torque springs required to meet indicated torque.

19 Series - Pistol Grip - "T" Handle - Trigger Start

Up to 0.4 - 10.8 ftlbs / 0.6 - 14.7 Nm

- Durable Clecomatic Clutch delivers best-in-class torque repeatability and long calibration cycle
- 2 grip sizes available for added versatility
- Reverse lever can be rotated to accommodate left-or-right-handed operators
- Engineered to suit a wide range of applications, from high volume assembly to aerospace



Model	Torque Range				Free Speed r/min	Length in	Weight		Air Consumption Scfm	Air Inlet Size in
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb			Lb	kg		
19TTA02Q	0.6	2.1	0.4	1.5	2800	7.9	1.43	0.65	11	1/4
19TTA03Q	0.6	2.9	0.4	2.1	1900	8.1	1.54	0.70	11	1/4
19TTA04Q	1.1	4.5	0.8	3.3	1100	7.9	1.54	0.70	11	1/4
19TTA05Q	1.1	5.1	0.8	3.7	660	8.3	1.54	0.70	11	1/4
19TTA06Q	1.1	5.1	0.8	3.7	260	8.3	1.54	0.70	11	1/4
19TTA07Q	1.7	6.8	1.2	5	660	8.3	1.54	0.70	11	1/4
19TTA09Q	1.7	8.9	1.2	6.5	470	9.3	1.72	0.78	11	1/4
19TTA15Q	5.1	14.7	3.7	10.8	260	9.6	1.94	0.88	11	1/4

General: 90 psi (620kPa) required for maximum rated torque.

Standard Equipment:

Operating instructions & service manual

Suspension bail

All torque springs required to meet indicated torque.

19 Series - Pistol Grip - “P” Handle - Push and Trigger Start

0.4 - 6.5 ftlbs / 0.6 - 8.9 Nm



- Durable Clecomatic Clutch delivers best-in-class torque repeatability and long calibration cycle
- 2 grip sizes available for added versatility
- Reverse lever can be rotated to accommodate left-or-right-handed operators
- Engineered to suit a wide range of applications, from high volume assembly to aerospace
- P Handle shaped so force can be applied for prevailing torque

Model	Torque Range				Free Speed	Length	Weight		Air Consumption	Air Inlet Size
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	r/min	in	Lb	kg	Scfm	in
19PCA02Q	0.6	2.1	0.4	1.5	2800	8.1	1.43	0.65	11	1/4
19PCA03Q	0.6	2.9	0.4	2.1	1900	8.3	1.5	0.68	11	1/4
19PCA04Q	1.1	4.5	0.8	3.3	1100	8.1	1.41	0.64	11	1/4
19PCA05Q	1.1	5.1	0.8	3.7	660	8.5	1.5	0.68	11	1/4
19PCA06Q	1.1	5.1	0.8	3.7	260	8.5	1.5	0.68	11	1/4
19PCA07Q	1.7	6.8	1.2	5	660	8.5	1.5	0.68	11	1/4
19PCA09Q	1.7	8.9	1.2	6.5	470	9.8	1.65	0.75	11	1/4

General: Tool performance rated at 90 psi (620kPa) air pressure.

Standard Equipment:

Operating instructions & service manual

Suspension ball

All torque springs required to meet indicated torque specification

19 Series - Pistol Grip - “P” Handle - Trigger Start

0.4 - 10.8 ftlbs / 0.6 - 14.7 Nm



- Durable Clecomatic Clutch delivers best-in-class torque repeatability and long calibration cycle
- 2 grip sizes available for added versatility
- P Handle shaped so force can be applied for prevailing torque fasteners
- Reverse lever can be rotated to accommodate left-or-right-handed operators
- Engineered to suit a wide range of applications, from high volume assembly to aerospace

Model	Torque Range				Free Speed	Length	Weight		Air Consumption	Air Inlet Size
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	r/min	in	Lb	kg	Scfm	in
19PTA02Q	0.6	2.1	0.4	1.5	2800	8	1.41	0.64	11	1/4
19PTA03Q	0.6	2.9	0.4	2.1	1900	8.2	1.5	0.68	11	1/4
19PTA04Q	1.1	4.5	0.8	3.3	1100	8	1.41	0.64	11	1/4
19PTA05Q	1.1	5.1	0.8	3.7	660	8.4	1.5	0.68	11	1/4
19PTA06Q	1.1	5.1	0.8	3.7	260	8.4	1.5	0.68	11	1/4
19PTA07Q	1.7	6.8	1.2	5	660	8.4	1.5	0.68	11	1/4
19PTA09Q	1.7	8.9	1.2	6.5	470	9.8	1.65	0.75	11	1/4
19PTA15Q	5.1	14.7	3.7	10.8	260	9.7	1.92	0.87	11	1/4

General: Tool performance rated at 90 psi (620kPa) air pressure.

Standard Equipment:

Operating instructions & service manual

Suspension bail

Side handle on 19PTA15Q.

All torque springs required to meet indicated torque specification

19 Series - Pistol Grip - Stall - “T” Handle - Trigger Start

Up to 3.7 ftlbs / 5.1 Nm

- 1/4" hex quick change drive
- Trigger Start
- T Handle balanced for high volume assembly cell and line production of machine screws
- 2 interchangeable soft-touch grip sizes
- Adjustable reverse lever for true one-hand left or right operation



Model	Torque Range Max (nm)	Torque Range Max (ft/lb)	Free Speed r/min	Length in	Weight		Air Consumption Scfm	Air Inlet Size in
	Max Nm	Max Ft Lb			Lb	kg		
19TTS02Q	2.1	1.5	2800	5.8	1.19	0.54	11	1/4
19TTS03Q	2.9	2.1	1900	6.1	1.19	0.54	11	1/4
19TTS04Q	4.5	3.3	1100	5.8	1.19	0.54	11	1/4
19TTS05Q	5.1	3.7	660	6.1	1.19	0.54	11	1/4

General: Tool performance rated at 90 psi (620kPa).

Standard Equipment:

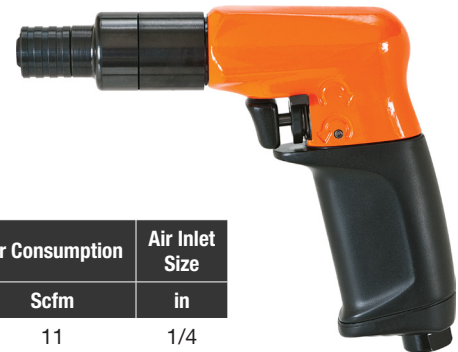
Operating instructions & service manual

Suspension bail

19 Series - Pistol Grip - Stall - “P” Handle - Trigger Start

Up to 3.7 ftlbs / 5.1 Nm

- 1/4" hex quick change drive
- Trigger Start
- P Handle shaped so force can be applied for prevailing torque fasteners
- 2 interchangeable soft-touch grip sizes
- Adjustable reverse lever for true one-hand left or right operation



Model	Torque Range Max (nm)	Torque Range Max (ft/lb)	Free Speed r/min	Length in	Weight		Air Consumption Scfm	Air Inlet Size in
	Max Nm	Max Ft Lb			Lb	kg		
19PTS02Q	2.1	1.5	2800	5.9	1.17	0.53	11	1/4
19PTS03Q	2.9	2.1	1900	6.1	1.17	0.53	11	1/4
19PTS04Q	4.5	3.3	1100	5.9	1.17	0.53	11	1/4
19PTS05Q	5.1	3.7	660	6.1	1.17	0.53	11	1/4

General: Tool performance rated at 90 psi (620kPa).

Standard Equipment:

Operating instructions & service manual

Suspension bail

88 Series - Pistol Grip - Trigger Start - Sliding Knob Reverse

1.2 - 14.7 ftlbs / 1.7 - 20 Nm

- Compact design increases productivity, saves weight, and is easy to integrate into any assembly environment
- Dependable Clecomatic clutch delivers consistent torque accuracy and repeatability
- Cleco motor is the industry standard for durability
- Easy to repair and maintain, with high parts interchangeability to other Cleco products
- 3/8" Square or 1/4" Quick Release Output



Model	Torque Range				Free Speed	Length	Weight		Side to Center	Air Consumption	Air Inlet Size
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	r/min	in	Lb	kg	in	Scfm	in
88RSATP-7C-3	1.7	10	1.2	7.3	550	8.9	3.13	1.42	0.81	19.1	1/4
88RSATP-7CQ	1.7	10	1.2	7.3	550	8.9	3.13	1.42	0.81	19.1	1/4
88RSATP-5C-3	1.7	18	1.2	13.2	400	8.9	3.13	1.42	0.81	19.1	1/4
88RSATP-5CQ	1.7	18	1.2	13.2	400	8.9	3.13	1.42	0.81	19.1	1/4
88RSATP-2C-3	1.7	20	1.2	14.7	200	9.6	3.37	1.53	0.81	19.1	1/4
88RSATP-2CQ	1.7	20	1.2	14.7	200	9.6	3.37	1.53	0.81	19.1	1/4

General: Tool performance rated at 90 psi (620kPa).

Standard Equipment:

Operating instructions & service manual

Suspension bail

All torque springs required to meet indicated torque

Side handle 861006PT on all models above 8 ftlbs torque capacity

88 Series - Pistol Grip - Push and Trigger Start - Sliding Knob Reverse

1.2 - 14.7 ftlbs / 1.7 - 20 Nm

- Compact design increases productivity, saves weight, and is easy to integrate into any assembly environment
- Dependable Clecomatic clutch delivers consistent torque accuracy and repeatability
- Cleco motor is the industry standard for durability
- Easy to repair and maintain, with high parts interchangeability to other Cleco products
- C-3 3/8" Square or CQ 1/4" Quick Release Output



Model	Torque Range				Free Speed	Length	Weight		Side to Center	Air Consumption	Air Inlet Size
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	r/min	in	Lb	kg	in	Scfm	in
88RSAPT-7CQ	1.7	10	1.2	7.3	550	9	3.13	1.42	0.81	19.1	1/4
88RSAPT-5C-3	1.7	18	1.2	13.2	400	9	3.13	1.42	0.81	19.1	1/4
88RSAPT-5CQ	1.7	18	1.2	13.2	400	9	3.13	1.42	0.81	19.1	1/4
88RSAPT-2CQ	1.7	20	1.2	14.7	200	9.8	3.37	1.53	0.81	19.1	1/4

General: Tool performance rated at 90 psi (620kPa).

Standard Equipment:

Operating instructions & service manual

Suspension bail

All torque springs required to meet indicated torque

Side handle 861006PT on all models above 8 ft lbs torque

MP Series - Positive Clutch Screwdrivers

Up to 11.6 ftlbs

- Great for soft draw applications such as wood or aluminum
- One-hand forward reverse switch
- Rugged metal housing and components outlasts the competition
- Efficient and balanced design maximizes accessibility while minimizing operator fatigue
- Operator push maintains drive, reduces pressure for clutch to slip



Model	Torque Range				Free Speed	Length	Weight		Air Consumption	Air Inlet Size
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	r/min	in	Lb	kg	Scfm	in
MP2464	3.3	8.5	0.8	6.2	2800	6.8	2.43	1.10	22	1/4
MP2465	5.1	11.3	0.8	8.3	1800	6.8	2.43	1.10	22	1/4
MP2466	9.6	15.8	0.8	11.6	1100	8.1	3.09	1.40	22	1/4

MP Series - Adjustable Clutch Screwdriver

2.5 - 8.3 ftlbs / 3.4 - 11.3 Nm

- Clutch shut-off adjusted by spring force
- One-hand forward reverse switch
- Rugged metal housing and components outlasts the competition
- Efficient and balanced design maximizes accessibility while minimizing operator fatigue



Model	Torque Range				Free Speed	Length	Weight		Air Consumption	Air Inlet Size
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	r/min	in	Lb	kg	Scfm	in
MP2477	3.4	11.3	2.5	8.3	1800	7.8	2.65	1.20	22	1/4

General:

Air All tools performance rated @ 90psi (620 kPa) air pressure.

Standard Equipment: Clutch adjustment wrenches

Owners Manual

Parts Sheet

MP Series - Versa Clutch Screwdrivers

0.4 - 11.6 ftlbs / 0.6 - 15.8Nm - Adjustable Slip Versa Clutch

- Adjustable slip clutch for general use
- One-hand forward reverse switch
- Rugged metal housing and components outlasts the competition
- Efficient and balanced design maximizes accessibility while minimizing operator fatigue
- Versa Clutch - Allows adjustment of cam overlap to adjust torque output



Model	Torque Range				Free Speed	Length	Weight		Air Consumption	Air Inlet Size
	Min Nm	Max Nm	Min Ft Lb	Max Ft Lb	r/min	in	Lb	kg	Scfm	in
MP2436	0.6	11.3	0.4	8.3	1800	7.8	2.65	1.20	22	1/4
MP2437	0.6	15.8	0.4	11.6	1100	9.1	3.31	1.50	22	1/4

General:
All tools performance rated @ 90psi (620 kPa) air pressure.
Standard Equipment:
Owners Manual
Parts Sheet

MP Series - Stall Screwdrivers

Up to 10 ftlbs / 13.6 Nm

- Torque is set by adjusting air pressure
- One-hand forward reverse switch
- Rugged metal housing and components outlasts the competition
- Efficient and balanced design maximizes accessibility while minimizing operator fatigue

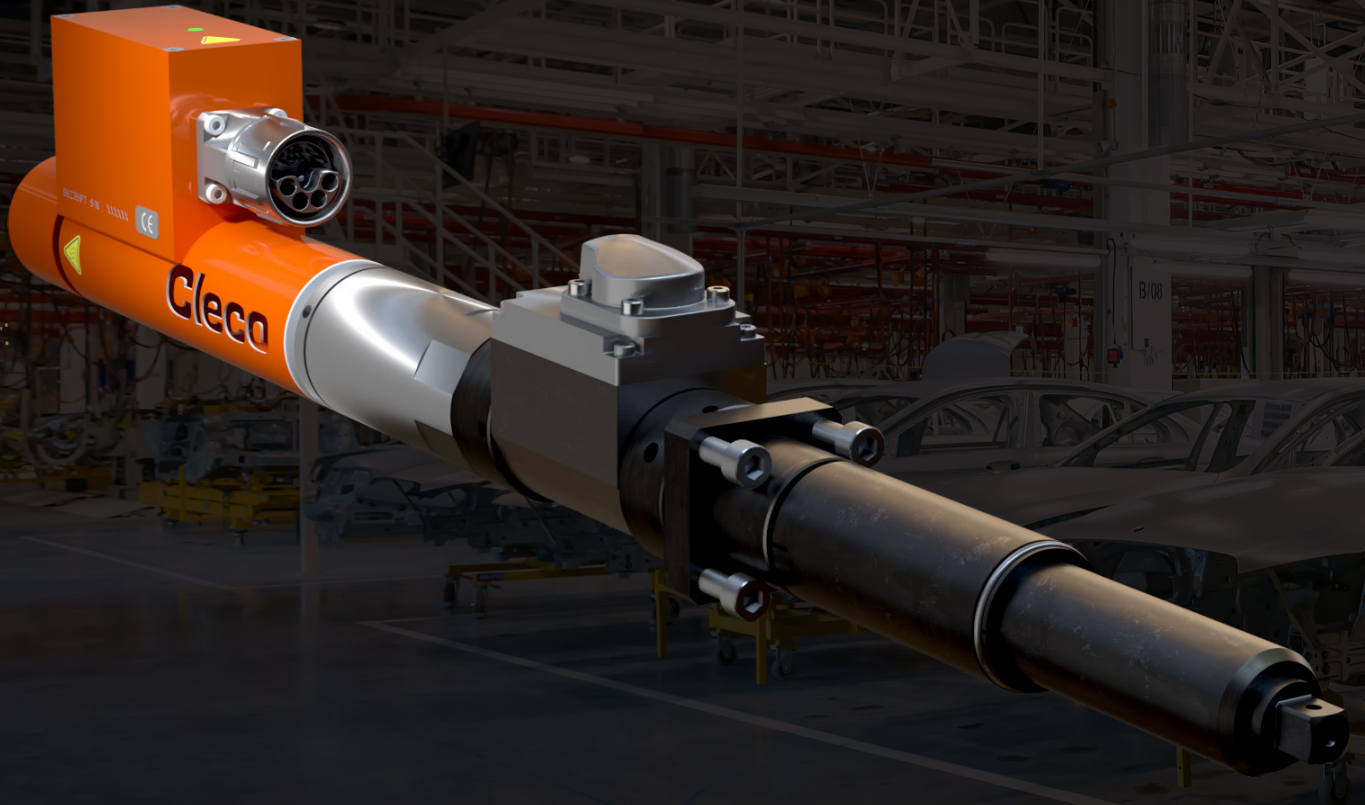


Model	Torque Range Max (nm)	Torque Range Max (ft/lb)	Free Speed	Length	Weight		Air Consumption	Air Inlet Size
	Max Nm	Max Ft Lb	r/min	in	Lb	kg	Scfm	in
MP2452	7.2	5.3	2800	5.7	2.18	0.99	22	1/4
MP2453	8.3	6.2	1800	5.7	2.18	0.99	22	1/4
MP2454	13.6	10	1100	7	2.87	1.30	22	1/4

General:
All tools performance rated @ 90psi (620 kPa) air pressure.
Standard Equipment:
Owners Manual
Parts Sheet

Cleco

FIXTURED SPINDLES



FIXTURED SPINDLES

KNOWN FOR **DURABILITY**.
TRUSTED FOR **QUALITY**.

THE ULTIMATE **AUTOMATED**
TIGHTENING SOLUTIONS.

Cleco DGD™ Intelligent Spindles are the exclusive fixtured assembly solution, combining reduced floor space, fewer cables and high-speed uptime availability for automated fastening applications. Intelligent spindles provide a wide range of torque capability and industry-leading free speeds.

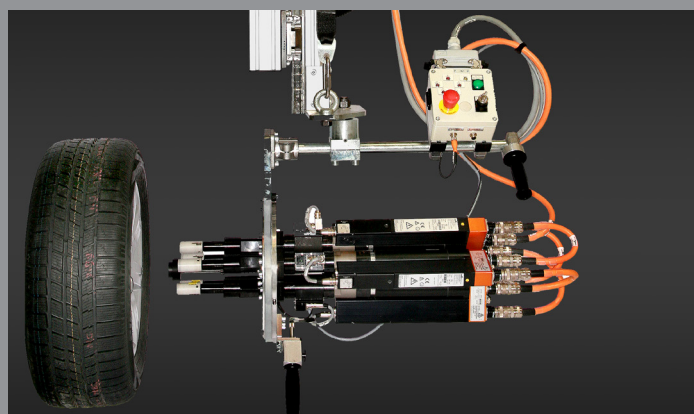


REDUCE YOUR **FOOTPRINT AND TOTAL COST OF OWNERSHIP** VIA OUR EXCLUSIVE INTELLIGENT SPINDLE CABLING TECHNOLOGY.

When you're looking to run robotic tightening applications, look to Cleco DGD intelligent spindle solutions. By utilizing our exclusive daisy-chain connectors, we offer the only solution in the industry that enables you to run multiple spindles using a daisy-chained cable solution. This results in reduced system complexity, simple cable management and smaller pay-load capacity.

SAME CELL, SAME ROBOT:
INTELLI-SWAP, AN INDUSTRY FIRST.

Combining Cleco DGD Intelligent Spindles and daisy-chain connectors with our patented Intelli-Swap system technology, plus an automatic, intelligent tool changer enables your system to rapidly switch from one group of spindles to another using the same controller. Cleco DGD solutions enable you to effortlessly manage multiple applications in a single cell.





BUILDING A FIXTURED DC TOOL SYSTEM

is as simple as 1, 2, 3 !

Conventional Spindle	Single Intelligent Spindle	Intelligent Spindles - Consult Application Center	INTELLIGENT SPINDLES
	✓	✓	Select from catalog. Floating spindle ordered separately.
	✓		mPRO400GCD-P-BTS
	✓	✓	mPRO400GCM PDBCPSXX - Select model from catalog.
		✓	Select cable with desired connector from catalog.
	✓	✓	Select from catalog.
CONVENTIONAL SPINDLES			
✓			Select from catalog. Floating spindle ordered separately.
✓			mPRO300GCD-STO, mPRO400GCD-S
			mPRO400GCD
✓			Select from catalog.
✓			Select from catalog.
✓	✓	✓	Select from catalog.
✓	✓	✓	Select cable with desired connector from catalog.
✓	✓	✓	Contact application center.

1. Choose a common system to the left
2. Select the components below.
3. Order your system!

Intelligent Fixtured Spindles	
System Control Package Controller, Power Transformer, Power Distribution Box, Arcnet Cable and Stand	
Jumper Extension Cables	
System Bus Terminator at Spindle	
Conventional Fixtured Spindles	
Controller	
Field Bus Accessories & System Bus Cable	
Extension Cables	
Floating Spindle Adaptors	
Field Cables	
Engineered System Fixturing	

BD Spindles

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a **best-in-class total cost of ownership**.



Choosing the Correct Spindle

1	B	D	U	53	T1	S	-A
---	---	---	---	----	----	---	----

1	Size = 1-4
B	B = Brushless motor
D	D = Digital design
U	U = U-gear
53	35 Nm max. tool capacity 53 Nm max. tool capacity 110 Nm max. tool capacity
T1	T1 = Single transducer T2 = Twin transducer T3 = Triple transducer
S	S = Straight drive O = Offset drive A = Angle head drive
-A	-A = Spindle revision (ongoing) -Sxxx = Special (xxx = assigned No.)

EXAMPLE:

1	B		D	U	35	T2	S	-A
---	---	--	---	---	----	----	---	----

Conventional spindle #1, U gear, 35 Nm, twin transducers, straight drive, spindle revision A

Find out today how Cleco's evolution of fixtured assembly systems will improve the performance and productivity of your assembly process.



Speed

Increased productivity through higher free speed



System Simplicity

Seamlessly and easily integrates to all assembly systems



Reliability

Increases overall equipment availability through an efficient engineered system



Accuracy

Ensures accurate and repeatable productivity

HIGHLY PRODUCTIVE ENGINEERED ASSEMBLY SYSTEMS.

Commonality

Cleco's System Controller provides a common platform with our other Cleco power tool products



Controller

New High Precision Motor

Offers increased free speed and improved system energy management

Precision Gearing

Efficient Cleco System Design

Simple and easy service, troubleshooting and maintenance

High-Performance Field Cable

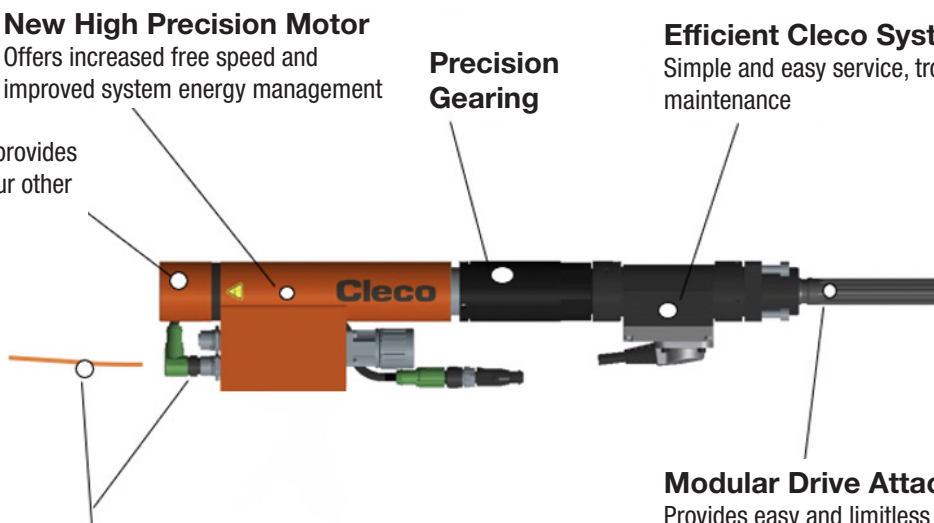
Improves performance and reliability, reduced size, improved jacket material and robust connectors

Modular Drive Attachment

Provides easy and limitless configurations

Lower Total Cost of Ownership

Engineered system with proven reliability and robustness which reduces production loss and overall system maintenance.



Conventional Spindle – BD/BDU Size 1 – Straight Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.



- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability - Increases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller

Model	Torque Range				Free Speed	Float	Min Center to Center	Weight		Length	
	Min Nm	Max Nm	Min Ft lb	Max Ft lb	r/min	mm	mm	Lb	kg	in	mm
1BD12T1S-A	2	12	1.5	8.9	3317	50	43	7.72	3.5	15.59	396
1BD12T2S-A	2	12	1.5	8.9	3317	50	43	9.04	4.1	18.74	476
1BDU12T1S-A	2	12	1.5	8.9	3317	50	43	8.82	4	9.88	251
1BDU12T2S-A	2	12	1.5	8.9	3317	50	43	10.14	4.6	13.03	331
1BD35T1S-A	3.5	35	2.6	25.8	1255	50	43	7.72	3.5	15.59	396
1BD35T2S-A	3.5	35	2.6	25.8	1255	50	43	9.04	4.1	18.74	476
1BDU35T1S-A	3.5	35	2.6	25.8	1255	50	43	8.82	4	9.88	251
1BDU35T2S-A	3.5	35	2.6	25.8	1255	50	43	10.14	4.6	13.03	331
1BD53T1S-A	5.3	53	3.9	39.1	737	50	43	7.72	3.5	15.59	396
1BD53T2S-A	5.3	53	3.9	39.1	737	50	43	9.04	4.1	18.74	476
1BDU53T1S-A	5.3	53	3.9	39.1	737	50	43	8.82	4	9.88	251
1BDU53T2S-A	5.3	53	3.9	39.1	737	50	43	10.14	4.6	13.03	331

Conventional Spindle – BD/BDU Size 1 – Angle Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.

- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability -
- Increases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller



Model	Torque Range				Free Speed	Float	Min Center to Center	Weight		Length	
	Min Nm	Max Nm	Min Ft lb	Max Ft lb	r/min	mm	mm	Lb	kg	in	mm
1BD12T1A-A	2	12	1.5	8.9	3110	25	52	9.7	4.4	16.81	427
1BD12T2A-A	2	12	1.5	8.9	3110	25	52	11.03	5	19.96	507
1BDU12T1A-A	2	12	1.5	8.9	3110	25	52	10.8	4.9	11.10	282
1BDU12T2A-A	2	12	1.5	8.9	3110	25	52	12.13	5.5	14.25	362
1BD35T1A-A	3.5	35	2.6	25.8	1176	25	52	9.7	4.4	16.81	427
1BD35T2A-A	3.5	35	2.6	25.8	1176	25	52	11.03	5	19.96	507
1BDU35T1A-A	3.5	35	2.6	25.8	1176	25	52	10.8	4.9	11.10	282
1BDU35T2A-A	3.5	35	2.6	25.8	1176	25	52	12.13	5.5	14.25	362
1BD53T1A-A	5.3	53	3.9	39.1	691	25	52	9.7	4.4	16.81	427
1BD53T2A-A	5.3	53	3.9	39.1	691	25	52	11.03	5	19.96	507
1BDU53T1A-A	5.3	53	3.9	39.1	691	25	52		4.9		282
1BDU53T2A-A	5.3	53	3.9	39.1	691	25	52	12.13	5.5	14.25	362

Conventional Spindle – BD/BDU Size 1 - Offset Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.



- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability - Increases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller

Model	Torque Range				Free Speed	Float	Min Center to Center	Weight		Length	Length
	Min Nm	Max Nm	Min Ft lb	Max Ft lb	r/min	mm	mm	Lb	kg	in	mm
1BD12T1O-A	2	12	1.5	8.9	3151	50	35	8.82	4	15.12	384
1BD12T2O-A	2	12	1.5	8.9	3151	50	35	10.14	4.6	18.27	464
1BDU12T1O-A	2	12	1.5	8.9	3151	50	35	9.92	4.5	9.41	239
1BDU12T2O-A	2	12	1.5	8.9	3151	50	35	11.25	5.1	12.56	319
1BD35T1O-A	3.5	35	2.6	25.8	1192	50	35	8.82	4	15.12	384
1BD35T2O-A	3.5	35	2.6	25.8	1192	50	35	10.14	4.6	18.27	464
1BDU35T1O-A	3.5	35	2.6	25.8	1192	50	35	9.92	4.5	9.41	239
1BDU35T2O-A	3.5	35	2.6	25.8	1192	50	35	11.25	5.1	12.56	319
1BD53T1O-A	5.3	53	3.9	39.1	700	50	35	8.82	4	15.12	384
1BD53T2O-A	5.3	53	3.9	39.1	700	50	35	10.14	4.6	18.27	464
1BDU53T1O-A	5.3	53	3.9	39.1	700	50	35	9.92	4.5	9.41	239
1BDU53T2O-A	5.3	53	3.9	39.1	700	50	35	11.25	5.1	12.56	319

Conventional Spindle – BD/BDU Size 2 - Straight Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.



- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability - Increases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller

Model	Torque Range				Free Speed	Float	Min Center to Center	Weight		Length	Length
	Min Nm	Max Nm	Min Ft lb	Max Ft lb	r/min	mm	mm	Lb	kg	in	mm
2BD110T1S-A	11	110	8.1	81.1	890	50	56	14.33	6.5	18.94	481
2BD110T2S-A	11	110	8.1	81.1	890	50	56	16.76	7.6	22.76	578
2BDU110T1S-A	11	110	8.1	81.1	890	50	56	16.54	7.5	12.2	310
2BDU110T2S-A	11	110	8.1	81.1	890	50	56	18.96	8.6	16.02	407
2BD200T1S-A	20	200	14.8	147.5	501	50	56	14.33	6.5	18.94	481
2BD200T2S-A	20	200	14.8	147.5	501	50	56	16.76	7.6	22.76	578
2BDU200T1S-A	20	200	14.8	147.5	501	50	56	16.54	7.5	12.2	310
2BDU200T2S-A	20	200	14.8	147.5	501	50	56	18.96	8.6	16.02	407

Conventional Spindle – BD/BDU Size 2 – Angle Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.



- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability - Increases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller

Model	Torque Range				Free Speed	Float	Min Center to Center	Weight		Length	Length
	Min Nm	Max Nm	Min Ft lb	Max Ft lb	r/min	mm	mm	Lb	kg	in	mm
2BD110T1A-A	11	110	8.1	81.1	837	25	59	16.76	7.6	19.88	505
2BD110T2A-A	11	110	8.1	81.1	837	25	59	19.18	8.7	23.7	602
2BDU110T1A-A	11	110	8.1	81.1	837	25	59	18.96	8.6	13.19	335
2BDU110T2A-A	11	110	8.1	81.1	837	25	59	21.39	9.7	17.01	432
2BD200T1A-A	20	200	14.8	147.5	472	25	59	16.76	7.6	19.88	505
2BD200T2A-A	20	200	14.8	147.5	472	25	59	19.18	8.7	23.7	602
2BDU200T1A-A	20	200	14.8	147.5	472	25	59	18.96	8.6	13.19	335
2BDU200T2A-A	20	200	14.8	147.5	472	25	59	21.39	9.7	17.01	432

Conventional Spindle – BD/BDU Size 2 – Offset Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.



- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability - Increases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller

Model	Torque Range				Free Speed	Float	Min Center to Center	Weight		Length	Length
	Min Nm	Max Nm	Min Ft lb	Max Ft lb	r/min	mm	mm	Lb	kg	in	mm
2BD110T1O-A	11	110	8.1	81.1	830	50	44	17.86	8.1	19.84	504
2BD110T2O-A	11	110	8.1	81.1	830	50	44	20.29	9.2	23.66	601
2BDU110T1O-A	11	110	8.1	81.1	830	50	44	20.07	9.1	13.11	333
2BDU110T2O-A	11	110	8.1	81.1	830	50	44	22.49	10.2	16.93	430
2BD200T1O-A	20	200	14.8	147.5	468	50	44	17.86	8.1	19.84	504
2BD200T2O-A	20	200	14.8	147.5	468	50	44	19.18	9.2	23.66	601
2BDU200T1O-A	20	200	14.8	147.5	468	50	44	20.07	9.1	13.11	333
2BDU200T2O-A	20	200	14.8	147.5	468	50	44	22.49	10.2	16.93	430

Conventional Spindle – BD/BDU Size 3 – Straight Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.



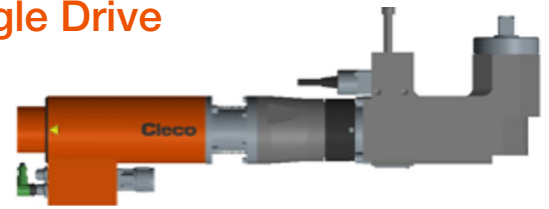
- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability - wouldIncreases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller

Model	Torque Range				Free Speed	Float	Min Center to Center	Weight		Length	Length
	Min Nm	Max Nm	Min Ft lb	Max Ft lb	r/min	mm	mm	Lb	kg	in	mm
3BD300T1S-A	30	300	22.1	221.3	480	50	81	28.89	13.1	21.97	558
3BD300T2S-A	30	300	22.1	221.3	480	50	81	33.52	15.2	26.38	670
3BDU300T1S-A	30	300	22.1	221.3	480	50	81	33.3	15.1	14.41	366
3BDU300T2S-A	30	300	22.1	221.3	480	50	81	37.93	17.2	18.82	478

Conventional Spindle – BD/BDU Size 3 – Angle Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.

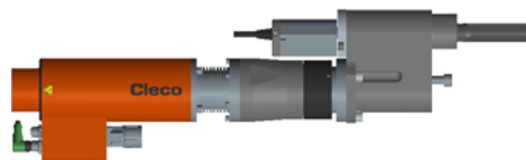
- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability - Increases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller



Model	Torque Range				Free Speed	Float	Min Center to Center	Weight		Length	Length
	Min Nm	Max Nm	Min Ft lb	Max Ft lb	r/min	mm	mm	Lb	kg	in	mm
3BD300T1A-A	30	300	22.1	221.3	462	25	81	37.04	16.8	23.9	607
3BD300T2A-A	30	300	22.1	221.3	462	25	81	41.67	18.9	28.31	719
3BDU300T1A-A	30	300	22.1	221.3	462	25	81	41.45	18.8	16.34	415
3BDU300T2A-A	30	300	22.1	221.3	462	25	81	46.08	20.9	20.75	527

Conventional Spindle – BD/BDU Size 3 – Offset Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.



- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability - Increases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller

Model	Torque Range				Free Speed	Float	Min Center to Center	Weight		Length	Length
	Min Nm	Max Nm	Min Ft lb	Max Ft lb	r/min	mm	mm	Lb	kg	in	mm
3BD300T1O-A	30	300	22.1	221.3	445	50	59	31.31	14.2	21.77	553
3BD300T2O-A	30	300	22.1	221.3	445	50	59	35.94	16.3	26.18	665
3BDU300T1O-A	30	300	22.1	221.3	445	50	59	35.5	16.1	14.21	361
3BDU300T2O-A	30	300	22.1	221.3	445	50	59	40.13	18.2	18.62	473

Conventional Spindle – BD/BDU Size 4 – Straight Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.

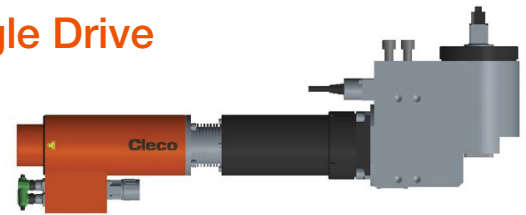


- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability - Increases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller

Model	Torque Range				Free Speed	Float	Min Center to Center	Weight		Length	Length
	Min Nm	Max Nm	Min Ft lb	Max Ft lb	r/min	mm	mm	Lb	kg	in	mm
4BD500T1S-A	50	500	36.9	368.8	269	50	91	44.1	20	27.13	689
4BD500T2S-A	50	500	36.9	368.8	269	50	91	50.72	23	32.17	817
4BDU500T1S-A	50	500	36.9	368.8	269	50	91	47.41	21.5	19.57	497
4BDU500T2S-A	50	500	36.9	368.8	269	50	91	54.02	24.5	24.61	625
4BD660T1S-A	66	660	48.7	486.8	183	50	91	44.1	20	27.13	689
4BD660T2S-A	66	660	48.7	486.8	183	50	91	50.72	23	32.17	817
4BDU660T1S-A	66	660	48.7	486.8	183	50	91	47.41	21.5	19.57	497
4BDU660T2S-A	66	660	48.7	486.8	183	50	91	54.02	24.5	24.61	625
4BD1250T1S-A	320	1250	236.0	922.0	91	50	121	61.74	28	29.21	742
4BD1250T2S-A	320	1250	236.0	922.0	91	50	121	68.36	31	34.17	868
4BDU1250T1S-A	320	1250	236.0	922.0	91	50	121	66.15	30	21.65	550
4BDU1250T2S-A	320	1250	236.0	922.0	91	50	121	72.77	33	26.65	677
4BD1600T1S-A	400	1600	295.0	1180.1	72	50	121	61.74	28	29.21	742
4BD1600T2S-A	400	1600	295.0	1180.1	72	50	121	68.36	31	34.17	868
4BDU1600T1S-A	400	1600	295.0	1180.1	72	50	121	66.15	30	21.65	550
4BDU1600T2S-A	400	1600	295.0	1180.1	72	50	121	72.77	33	26.65	677
4BD2800T1S-A	980	2800	722.8	2065.2	39			78.28	35.5	28.94	735
4BD2800T2S-A	980	2800	722.8	2065.2	39			84.89	38.5	33.94	862
4BDU2800T1S-A	980	2800	722.8	2065.2	39			82.69	37.5	22.36	568
4BDU2800T2S-A	980	2800	722.8	2065.2	39			89.3	40.5	27.4	696

Conventional Spindle – BD/BDU Size 4 – Angle Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.

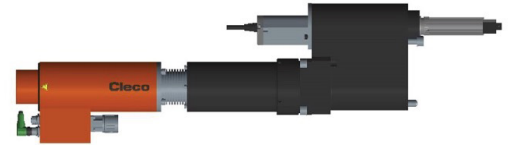


- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability - Increases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller

Model	Torque Range				Free Speed	Float	Min Center to Center	Weight		Length	Length
	Min Nm	Max Nm	Min Ft lb	Max Ft lb	r/min	mm	mm	Lb	kg	in	mm
4BD500T1A-A	50	500	36.9	368.8	259	25	112	57.55	26.1	25.39	645
4BD500T2A-A	50	500	36.9	368.8	259	25	112	64.17	29.1	30.39	772
4BDU500T1A-A	50	500	36.9	368.8	259	25	112	61.08	27.7	17.83	453
4BDU500T2A-A	50	500	36.9	368.8	259	25	112	67.69	30.7	22.83	580
4BD660T1A-A	66	660	48.7	486.8	177	25	112	57.55	26.1	25.39	645
4BD660T2A-A	66	660	48.7	486.8	177	25	112	64.17	29.1	30.39	772
4BDU660T1A-A	66	660	48.7	486.8	177	25	112	61.08	27.7	17.83	453
4BDU660T2A-A	66	660	48.7	486.8	177	25	112	67.69	30.7	22.83	580

Conventional Spindle – BD/BDU Size 4 – Offset Drive

Cleco's Digital (BD) Spindles are engineered to bring you a new level of performance and productivity, offering a best-in-class total cost of ownership.



- Speed - Increased productivity through higher free speed
- System Simplicity - Seamlessly and easily integrates to all assembly systems
- Reliability - Increases overall equipment availability through an efficient engineered system
- Accuracy - Ensures accurate and repeatable productivity
- Compatible with mPro300GCD-STO Global Controller

Model	Torque Range				Free Speed	Float	Min Center to Center	Weight		Length	Length
	Min Nm	Max Nm	Min Ft lb	Max Ft lb	r/min	mm	mm	Lb	kg	in	mm
4BD500T1O-A	50	500	36.9	368.8	252	50	76	47.41	21.5	25.79	655
4BD500T2O-A	50	500	36.9	368.8	252	50	76	54.02	24.5	30.79	782
4BDU500T1O-A	50	500	36.9	368.8	252	50	76	50.72	23	18.23	463
4BDU500T2O-A	50	500	36.9	368.8	252	50	76	57.33	26	23.23	590
4BD660T1O-A	66	660	48.7	486.8	172	50	76	47.41	21.5	25.79	655
4BD660T2O-A	66	660	48.7	486.8	172	50	76	54.02	24.5	30.79	782
4BDU660T1O-A	66	660	48.7	486.8	172	50		50.72	23	18.23	463
4BDU660T2O-A	66	660	48.7	486.8	172	50	76	57.33	26	23.23	590
4BD750T1O-A	75	750	55.3	553.2	143	50	76	48.51	22	25.79	655
4BD750T2O-A	75	750	55.3	553.2	143	50	76	55.13	25	30.79	782
4BDU750T1O-A	75	750	55.3	553.2	143	76	76	58.43	26.5	23.23	590
4BDU750T2O-A	75	750	55.3	553.2	143	50	76	58.43	26.5	23.23	590

Mini Spindles

Mini-Spindles are the **compact solution for low-torque applications** in automatic or semi-automatic machine or robotic assembly station.

Choosing the Correct Spindle



30	M	A	D	28	P3	E	G	-S	1	001
----	---	---	---	----	----	---	---	----	---	-----

30	30 - Motorunit 0,9Nm 50 - Motorunit 2,1Nm									
M	B = Minispindle									
A	A = Angle O= Offset S= Straight T= Tubenut C= Crowfoot									
D	D = Digital design									
28	28 = max. tool capacity 28 Nm 35 = max. tool capacity 35 Nm 51 = max. tool capacity 51 Nm etc.									
P3	P3 = spiral geared AH 3/8"									
E	E= Electronic for 2nd Transducer									
G	G= Thread in angle head for attachment									
-S	- S = Special with ATG Components - C = Special with Customer Components									
1	- = Standard -L = turned AH left side -R = turned AH right side -180 = turned AH 180 degrees (Nomenclature of Standard tools ends here)									
001	Only used if Special Tool: 001 = ongoing No. Drive Component delivered by: 0 = Apex 1 = Lübbering 2 = free 3 = free 4 = free 5 = free 6 = free 7 = free 8 = free 9 = free									

Conventional Fixtured Spindle - Mini - Straight

- Intelligent and compact solution for low-torque applications in automatic or semi-automatic assembly (fixed automation or robot)
- Built-in mounting provisions for ease of fixturing
- Lightweight



Model	Torque Range				Free Speed r/min	Weight		Length	
	Min Nm	Max Nm	Min Ft lb	Max Ft lb		Lb	kg	in	mm
30MSD10D3E	3	10	2.2	7.4	1425	2.64	1.2	7.37	187.1
30MSD15D3E	4	15	3.0	11.1	1075	2.64	1.2	7.59	192.9
50MSD32D3E	9	32	6.6	23.6	770	3.52	1.6	9.36	237.7

Conventional Fixtured Spindle - Mini - Angle

- Compact solution for low-torque applications in automatic or semi-automatic assembly (fixed automation or robot)
- Built-in mounting provisions for ease of fixturing
- Lightweight



Model	Torque Range				Free Speed r/min	Weight		Length	
	Min Nm	Max Nm	Min Ft lb	Max Ft lb		Lb	kg	in	mm
30MAD28P3E	7	28	5.2	20.7	495	3.74	1.7	10.12	257.1
30MAD38P3E	8	38	5.9	28.0	495	3.96	1.8	10.21	259.3
50MAD51P3E	14	51	10.3	37.6	920	4.84	2.2	12.0	304.8
50MAD61P3E	16	61	11.8	45.0	800	5.06	2.3	12.31	312.8

Intelligent Spindles

With straight drive, offset drive, and angle drive configurations, each available with reversible gears, and four different motor sizes to suit different torque requirements, there's an Intelligent Spindle to fit most any situation. Your Apex Tool Group Technical Sales Representative will work with you to determine the best solution for you. We can also provide you with application assistance in automation integration, joint analysis testing, complex data connection, and more.



Example **1** **BTSE** — **1B035A** — **2/** **1M1B** — **1ZB**

X **XXXX** — **XXXXXX** — **X** **XXXX** — **XXXXX**

Size
1, 2, 3, 4

Motor with servoamplifier & measurement card
B - Brushless Motor
U - Reverse gearing
TS - Tightening System
E - Standard

Gear
1 - Size
B - Brushless motor gear
XXX - Max. torque
A - Generation

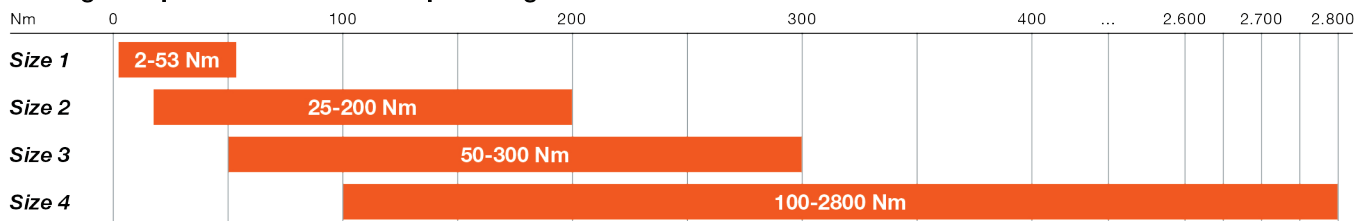
2nd Transducer for cross check
2 - 2x only for Z attachment

Attachment
1 - Size
Z - Straight attachment
VK - Offset drive with transducer
WK - Angle drive with transducer
1 - Capacity level
B - Version

Transducer
1 - Size
K - Combination torque + angle
1 - Capacity level 1 or 2
B - Version
M - Only moment, no angle encoder

Note: Floating spindle adapter must be ordered separately.

Intelligent Spindle Sizes and Torque Ranges



Intelligent Spindle - BTS Size 1-4 (2-1600 Nm) - Straight Drive - Single Torque Transducer - Angle Encoder

On board servo module, Patented daisy chain, Torque transducer, Angle Encoder, modular construction

- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle



Model	Torque Range				Free Speed r/min	Float mm	Drive Type	Min Center to Center mm	Weight		Length	
	Min Nm	Max Nm	Min Ft lb	Max Ft lb					Lb	kg	in	mm
947541A8	2	12	1.48	8.9	1921	50	3/8" Square Drive	43	10.6	4.8	19.1	486
947553A4	5	35	3.69	25.8	727	50	3/8" Square Drive	43	10.6	4.8	19.1	486
947565A0	15	53	11.1	39.1	427	50	3/8" Square Drive	43	10.6	4.8	19.1	486
947517A8	25	110	18.5	81	890	50	1/2" Square Drive	56	16.8	7.6	20.8	528
947529A4	40	200	29.5	148	502	50	3/4" Square Drive	56	16.8	7.6	20.8	528
947577A6	50	300	36.9	221	453	50	3/4" Square Drive	81	31.1	14.1	23.2	589
947589A2	100	500	74	369	254	50	3/4" Square Drive	91	46.3	21	28.3	719
947601A5	130	660	96	487	174	50	1" Square Drive	91	46.3	21	28.3	719
947617A71	320	1250	236	921	86	50	1" Square Drive	121	64	29	30.4	771
947621A11	400	1600	295	1180	68	50	1-1/2" Square Drive	121	64	29	30.4	771

Intelligent Spindle - BTSE Size 1-4 (2-2800 Nm) - Straight Drive - Single Torque Transducer

On board servo module, Patented daisy chain, Torque transducer, modular construction

- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle



Model	Torque Range				Free Speed r/min	Float mm	Drive Type	Min Center to Center mm	Weight		Length	
	Min Nm	Max Nm	Min Ft lb	Max Ft lb					Lb	kg	in	mm
947626A6	2	12	1.48	8.85	1921	50	3/8" Square Drive	43	10.6	5.3	19.1	393
947632A8	5	35	1.48	25.8	727	50	3/8" Square Drive	43	10.6	5.3	19.1	393
947638A2	15	53	11.1	39.1	427	50	3/8" Square Drive	43	10.6	5.3	19.1	393
947644A4	25	110	18.4	81.1	890	50	3/8" Square Drive	56	16.8	8.6	20.8	367
947650A6	40	200	29.5	146	502	50	3/8" Square Drive	56	16.8	8.6	20.8	367
947656A0	50	300	36.9	221	453	50	3/8" Square Drive	81	31.1	16.1	23.2	417
947662A2	100	500	73.8	369	254	50	3/8" Square Drive	91	46.3	22.5	28.3	546
947668A6	130	660	95.9	487	174	50	3/8" Square Drive	91	46.3	22.5	28.3	546
947676A6	320	1250	236	922	86	50	3/8" Square Drive	121	64	31	30.4	599
947677A5	400	1600	295	1180	68	50	3/8" Square Drive	121	64	31	30.4	599
947681A9	980	2800	773	2065	37	50	3/8" Square Drive	160	88	39.73	31.1	790

Intelligent Spindle - BTS Size 1-4 (2-1600 Nm) - Straight Drive - Twin Torque Transducer - Twin Angle Encoder

On board servo module, Patented daisy chain, Twin Torque transducer, Angle Encoder, Modular construction

- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle

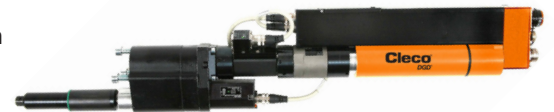


Model	Torque Range				Free Speed r/min	Float mm	Drive Type	Min Center to Center mm	Weight		Length	
	Min Nm	Max Nm	Min Ft lb	Max Ft lb					Lb	kg	in	mm
947542A7	2	12	1.48	8.9	1921	50	3/8" Square Drive	43	11.9	5.4	22.3	566
947554A3	5	35	3.69	25.8	727	50	3/8" Square Drive	43	11.9	5.4	22.3	566
947566A9	15	53	11.1	39.1	427	50	3/8" Square Drive	43	11.9	5.4	22.3	566
947518A7	25	110	18.5	81	890	50	1/2" Square Drive	56	19.2	8.7	24.6	625
947530A1	40	200	29.5	148	502	50	3/4" Square Drive	56	19.2	8.7	24.6	625
947578A5	50	300	36.9	221	453	50	3/4" Square Drive	81	35.7	16.2	27.6	701
947590A9	100	500	74	369	254	50	3/4" Square Drive	91	53	24	33.3	846
947602A4	130	660	96	487	174	50	1" Square Drive	91	53	24	33.3	846
947618A61	320	1250	236	922	86	50	1" Square Drive	121	71	32	35.4	899
947622A01	400	1600	295	1180	68	50	1-1/2" Square Drive	121	71	32	35.4	899

Intelligent Spindle - BTS Size 1-4 (25-750 Nm) - Offset Drive - Twin Torque Transducer - Twin Angle Encoder

On board servo module, Patented daisy chain, Twin Torque transducer, Twin Angle Encoder

- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle

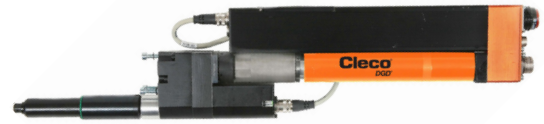


Model	Torque Range				Free Speed r/min	Float mm	Drive Type	Min Center to Center mm	Weight		Length	
	Min Nm	Max Nm	Min Ft lb	Max Ft lb					Lb	kg	in	mm
947544A5	2	12	1.48	8.9	1825	50	3/8" Square Drive	35	13	5.9	21.8	554
947556A1	5	35	3.69	25.8	690	50	3/8" Square Drive	35	13	5.9	21.8	554
947568A7	15	53	11.1	39.1	405	50	3/8" Square Drive	35	13	5.9	21.8	554
947522A1	25	110	18.5	81	831	50	1/2" Square Drive	44	22.7	10.3	25.5	648
947534A7	40	200	29.5	148	468	50	3/4" Square Drive	44	22.7	10.3	25.5	648
947580A1	50	300	36.9	221	421	50	3/4" Square Drive	59	38.1	17.3	27.4	696
947592A7	100	500	74	369	238	50	3/4" Square Drive	76	56	25.5	32	812
947604A2	130	660	96	487	163	50	1" Square Drive	76	56	25.5	32	812
947608A8	160	750	118	554	135	50	1" Square Drive	76	57	26	32	812

Intelligent Spindle - BTS Size 1-4 (2-750 Nm) - Offset Drive - Single Torque Transducer - Angle Encoder

On board servo module, Patented daisy chain, Single Torque Transducer, Angle Encoder, Modular construction

- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle

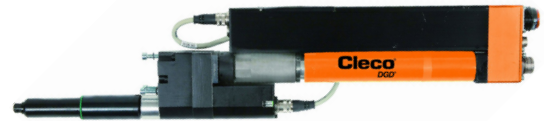


Model	Torque Range				Free Speed r/min	Float mm	Drive Type	Min Center to Center mm	Weight		Length	
	Min Nm	Max Nm	Min Ft lb	Max Ft lb					Lb	kg	in	mm
947543A6	2	12	1.48	8.9	1825	50	3/8" Square Drive	35	11.7	5.3	18.7	474
947555A2	5	35	3.69	25.8	690	50	3/8" Square Drive	35	11.7	5.3	18.7	474
947567A8	15	53	11.1	39.1	405	50	3/8" Square Drive	35	11.7	5.3	18.7	474
947521A2	25	110	18.5	81	831	50	1/2" Square Drive	44	20.3	9.2	21.7	551
947533A8	40	200	29.5	148	468	50	3/4" Square Drive	44	20.3	9.2	21.7	551
947579A4	50	300	36.9	221	421	50	3/4" Square Drive	59	33.5	15.2	23	584
947591A8	100	500	74	369	238	50	3/4" Square Drive	76	50	22.5	26.9	684
947603A3	130	660	96	487	163	50	1" Square Drive	76	50	22.5	26.9	684
947607A9	160	750	118	554	135	50	1" Square Drive	76	51	23	26.9	684

Intelligent Spindle - BTSE Size 1-4 (2-750 Nm) - Offset Drive - Single Torque Transducer - Angle Encoder

On board servo module, Patented daisy chain, Torque transducer, modular construction

- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle



Model	Torque Range				Free Speed r/min	Float mm	Drive Type	Min Center to Center mm	Weight		Length	
	Min Nm	Max Nm	Min Ft lb	Max Ft lb					Lb	kg	in	mm
947627A5	2	12	1.48	8.85	1801	50	3/8" Square Drive	35	11.7	5.7	18.7	542
947633A7	5	35	3.69	25.8	681	50	3/8" Square Drive	35	11.7	5.7	18.7	542
947639A1	15	53	11.1	39.1	400	50	3/8" Square Drive	35	11.7	5.7	18.7	542
947645A3	25	110	18.4	81.1	838	50	3/8" Square Drive	44	20.3	8.7	21.7	581
947651A5	40	200	29.5	146	472	50	3/8" Square Drive	44	20.3	8.7	21.7	581
947657A9	50	300	36.9	221	437	50	3/4" Square Drive	59	33.5	17.8	23	629
947633A1	100	500	73.8	369	245	50	3/4" Square Drive	76	50	27.1	26.9	729
947669A5	130	660	95.9	487	167	50	1" Square Drive	76	50	27.1	26.9	729
947671A1	160	750	118	553	135	50	1" Square Drive	76	51	23	26.9	729

Intelligent Spindle - BTS Size 1-4 (2-660 Nm) - Angle Drive - Single Torque Transducer - Single Angle Encoder

On board servo module, Patented daisy chain, Twin Torque transducer, TwinAngle Encoder, Modular construction



- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle

Model	Torque Range				Free Speed r/min	Float mm	Drive Type	Min Center to Center mm	Weight		Length	
	Min Nm	Max Nm	Min Ft lb	Max Ft lb					Lb	kg	in	mm
947545A4	2	12	1.48	8.9	1801	25	3/8" Square Drive	52	12.6	5.7	21.3	542
947557A0	5	35	3.69	25.8	681	25	3/8" Square Drive	52	12.6	5.7	21.3	542
947569A6	15	53	11.1	39.1	400	25	3/8" Square Drive	52	12.6	5.7	21.3	542
947525A8	25	110	18.5	81	838	25	1/2" Square Drive	59	19.2	8.7	22.9	581
947537A4	40	200	29.5	148	472	25	3/4" Square Drive	59	19.2	8.7	22.9	581
947581A0	50	300	36.9	221	437	25	3/4" Square Drive	81	39.2	17.8	26.7	678
947593A6	100	500	74	369	245	25	1" Square Drive	112	60	27.1	28.7	729
947605A1	130	660	96	487	167	25	1" Square Drive	112	60	27.1	28.7	729

Intelligent Spindle - BTSE Size 1-4 (2-660 Nm) - Angle Drive - Single Torque Transducer

On board servo module, Patented daisy chain, Torque transducer, modular consutction



- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle

Model	Torque Range				Free Speed r/min	Float mm	Drive Type	Min Center to Center mm	Weight		Length	
	Min Nm	Max Nm	Min Ft lb	Max Ft lb					Lb	kg	in	mm
947628A4	2	12	1.48	8.85	1801	25	3/8" Square Drive	52	12.6	5.7	21.3	542
947634A6	5	35	3.69	25.8	681	25	3/8" Square Drive	52	12.6	5.7	21.3	542
947640A8	15	53	11.1	39.1	400	25	3/8" Square Drive	52	12.6	5.7	21.3	542
947646A2	25	110	18.4	81.1	838	25	1/2" Square Drive	59	19.2	8.7	22.9	581
947652A4	40	200	29.5	146	472	25	3/4" Square Drive	59	19.2	8.7	22.9	581
947658A8	50	300	36.9	221	437	25	3/4" Square Drive	81	39.2	17.8	26.7	678
947664A0	100	500	73.8	369	245	25	1" Square Drive	112	60	27.1	28.7	729
947670A2	130	660	95.9	487	167	25	1" Square Drive	112	60	27.1	28.7	729

Intelligent Spindle - BTS Size 1-4 (2-660 Nm) - Angle Drive - Twin Torque Transducer - Twin Angle Encoder

On board servo module, Patented daisy chain, Twin Torque transducer, Angle Encoder

- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle



Model	Torque Range				Free Speed r/min	Float mm	Drive Type	Min Center to Center mm	Weight		Length	
	Min Nm	Max Nm	Min Ft lb	Max Ft lb					Lb	kg	in	mm
947546A3	2	12	1.48	8.9	1801	25	3/8" Square Drive	52	13.9	6.3	24.5	622
947558A9	5	35	3.69	25.8	681	25	3/8" Square Drive	52	13.9	6.3	24.5	622
947570A3	15	53	11.1	39.1	400	25	3/8" Square Drive	52	13.9	6.3	24.5	622
947526A7	25	110	18.5	81	838	25	1/2" Square Drive	59	21.6	9.8	26.7	678
947538A3	40	200	29.5	148	472	25	3/4" Square Drive	59	21.6	9.8	26.7	678
947582A9	50	300	36.9	221	437	25	3/4" Square Drive	81	43.9	19.9	31.1	790
947594A5	100	500	74	369	245	25	1" Square Drive	112	66	30.1	33.7	856
947606A0	130	660	96	487	167	25	1" Square Drive	112	66	30.1	33.7	856

Intelligent Spindle - BUTS Size 1-4 (2-1600 Nm) - Straight Drive - Reversible Gears - Single Torque Transducer - Angle Encoder

- The transducer can be rotated for crowded multiple spindle arrangements (DGD 15° radial toothing).
- Floating adapter not included with spindle



Model	Torque Range				Free Speed r/min	Float mm	Drive Type	Min Center to Center mm	Weight		Length	
	Min Nm	Max Nm	Min Ft lb	Max Ft lb					Lb	kg	in	mm
947547A2	2	12	1.48	8.9	1921	50	3/8" Square Drive	43	11.7	5.3	15.5	393
947559A8	5	35	3.69	25.8	727	50	3/8" Square Drive	43	11.7	5.3	15.5	393
947571A2	15	53	11.1	39.1	427	50	3/8" Square Drive	43	11.7	5.3	15.5	393
947519A6	25	110	18.5	81	890	50	1/2" Square Drive	56	19	8.6	14.4	367
947531A0	40	200	29.5	148	502	50	3/4" Square Drive	56	19	8.6	14.4	367
947583A8	50	300	36.9	221	453	50	3/4" Square Drive	81	35.5	16.1	16.4	417
947595A4	100	500	74	369	254	50	3/4" Square Drive	91	50	22.5	21.5	546
947609A7	130	660	96	487	174	50	1" Square Drive	91	50	22.5	21.5	546
947619A51	320	1250	236	922	86	50	1" Square Drive	121	68	31	23.6	599
947623A91	400	1600	295	1180	68	50	1-1/2" Square Drive	121	68	31	23.6	599

Intelligent Spindle - BUTS Size 1-4 (2-1600 Nm) - Straight Drive - Reversible Gears - Twin Torque Transducer - Twin Angle Encoder

On board servo module, Patented daisy chain, Twin Torque transducer, Twin Angle Encoder

- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle



Model	Torque Range				Free Speed r/min	Float mm	Drive Type	Min Center to Center mm	Weight		Length	
	Min Nm	Max Nm	Min Ft lb	Max Ft lb					Lb	kg	in	mm
947548A1	2	12	1.48	8.9	1921	50	3/8" Square Drive	43	13	5.9	15.5	393
947560A5	5	35	3.69	25.8	727	50	3/8" Square Drive	43	13	5.9	15.5	393
947572A1	15	53	11.1	39.1	427	50	3/8" Square Drive	43	13	5.9	15.5	393
947520A3	25	110	18.5	81	890	50	1/2" Square Drive	56	21.4	9.7	18.3	464
947532A9	40	200	29.5	148	502	50	3/4" Square Drive	56	21.4	9.7	18.3	464
947584A7	50	300	36.9	221	453	50	3/4" Square Drive	81	40.1	18.2	20.8	528
947596A3	100	500	74	369	254	50	3/4" Square Drive	91	56	25.5	26.5	674
947610A4	130	660	96	487	174	50	1" Square Drive	91	56	25.5	26.5	674
947620A21	320	1250	236	922	86	50	1" Square Drive	121	75	34	28.6	726
947624A81	400	1600	295	1180	68	50	1-1/2" Square Drive	121	75	34	28.6	726

Intelligent Spindle - BUTS size 1-4 (2-750 Nm) - Offset Drive - Reversible Gears - Twin Torque Transducer - Twin Angle Encoder

On board servo module, Patented daisy chain, Twin Torque transducer, Twin Angle Encoder

- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle



Model	Torque Range				Free Speed r/min	Float mm	Drive Type	Min Center to Center mm	Weight		Length	
	Min Nm	Max Nm	Min Ft lb	Max Ft lb					Lb	kg	in	mm
947550A7	2	12	1.48	8.9	1825	50	3/8" Square Drive	35	14.1	6.4	15	382
947562A3	5	35	3.69	25.8	690	50	3/8" Square Drive	35	14.1	6.4	15	382
947574A9	15	53	11.1	39.1	405	50	3/8" Square Drive	35	14.1	6.4	15	382
947524A9	25	110	18.5	81	831	50	1/2" Square Drive	44	24.9	11.3	19.2	487
947536A5	40	200	29.5	148	468	50	3/4" Square Drive	44	24.9	11.3	19.2	487
947586A5	50	300	36.9	221	421	50	3/4" Square Drive	59	42.5	19.3	20.6	523
947598A1	100	500	74	369	238	50	3/4" Square Drive	76	60	27	25.2	639
947612A2	130	660	96	487	163	50	1" Square Drive	76	60	27	25.2	639
947616A8	160	750	118	554	135	50	1" Square Drive	76	61	27.5	25.2	639

Intelligent Spindle - BUTS size 1-4 (2-750 Nm) - Offset Drive - Reversible Gears - Single Torque Transducer - Angle Encoder

- The transducer can be rotated for crowded multiple spindle arrangements (DGD 15° radial toothing).
- Floating adapter not included with spindle



Model	Torque Range				Free Speed r/min	Float mm	Drive Type	Min Center to Center mm	Weight		Length	
	Min Nm	Max Nm	Min Ft lb	Max Ft lb					Lb	kg	in	mm
947549A0	2	12	1.48	8.9	1825	50	3/8" Square Drive	35	12.8	5.8	15	382
947561A4	5	35	3.69	25.8	690	50	3/8" Square Drive	35	12.8	5.8	15	382
947573A0	15	53	11.1	39.1	405	50	3/8" Square Drive	35	12.8	5.8	15	382
947523A0	25	110	18.5	81	831	50	1/2" Square Drive	44	22.5	10.2	15.4	390
947535A6	40	200	29.5	148	468	50	3/4" Square Drive	44	22.5	10.2	15.4	390
947585A6	50	300	36.9	221	421	50	3/4" Square Drive	59	37.9	17.2	16.2	412
947597A2	100	500	74	369	238	50	3/4" Square Drive	76	53	24	20.2	512
947611A3	130	660	96	487	163	50	1" Square Drive	76	53	24	20.2	512
947615A9	160	750	118	554	135	50	1" Square Drive	76	54	24.5	20.2	512

Intelligent Spindle - BUTS Size 1-4 (2-660 Nm) - Angle Drive - Reversible Gears - Twin Torque Transducer - Twin Angle Encoder

On board servo module, Patented daisy chain, Torque transducer, modular construction

- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle



Model	Torque Range				Free Speed r/min	Float mm	Drive Type	Min Center to Center mm	Weight		Length	
	Min Nm	Max Nm	Min Ft lb	Max Ft lb					Lb	kg	in	mm
947552A5	2	12	1.48	8.9	1801	25	3/8" Square Drive	52	15	6.8	17.7	450
947564A1	5	35	3.69	25.8	681	25	3/8" Square Drive	52	15	6.8	17.7	450
947576A7	15	53	11.1	39.1	400	25	3/8" Square Drive	52	15	6.8	17.7	450
947528A5	25	110	18.5	81	838	25	1/2" Square Drive	59	21.4	9.7	20.4	518
947540A9	40	200	29.5	148	472	25	3/4" Square Drive	59	21.4	9.7	20.4	518
947588A3	50	300	36.9	221	437	25	3/4" Square Drive	81	48	21.9	24.3	617
947600A6	100	500	74	369	245	25	1" Square Drive	112	70	31.6	26.9	684
947614A0	130	660	96	487	167	25	1" Square Drive	112	70	31.7	26.9	684

Intelligent Spindle - BUTS Size 1-4 (2-660 Nm) - Angle Drive - Reversible Gears - Single Torque Transducer - Angle Encoder

On board servo module, Patented daisy chain, Twin Torque transducer, Angle Encoder

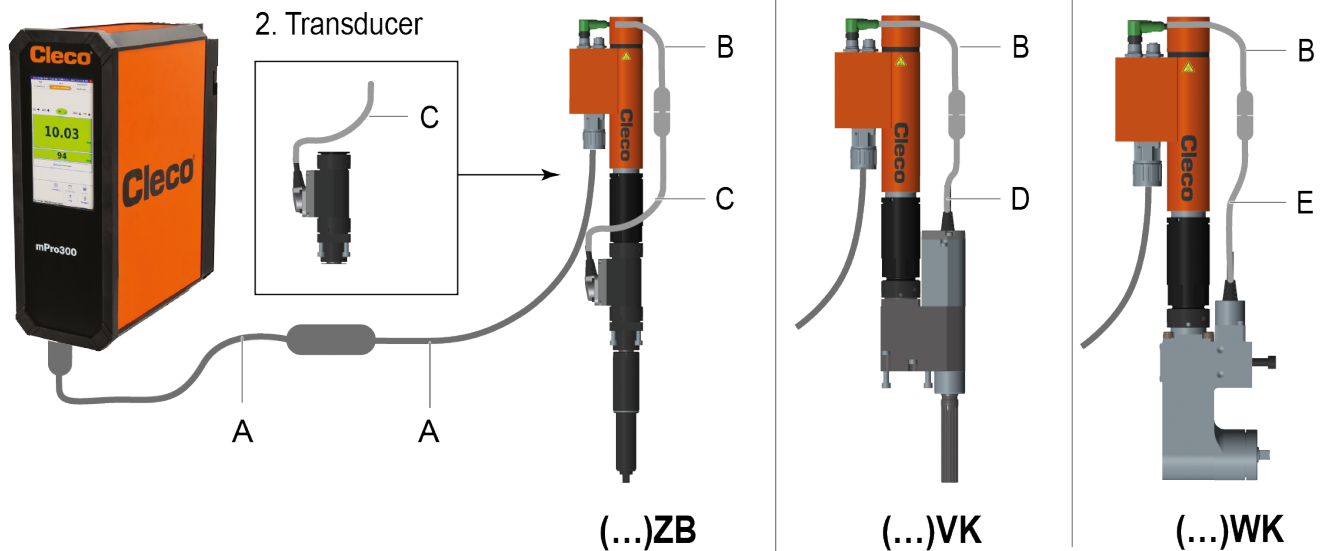
- Long Service Life, Maximum Precision, High Accuracy, World class free speed, On-Board trouble shooting
- Floating adapter not included with spindle



Model	Torque Range				Free Speed	Float	Drive Type	Min Center to Center	Weight		Length	
	Min Nm	Max Nm	Min Ft lb	Max Ft lb	r/min	mm		mm	Lb	kg	in	mm
947551A6	2	12	1.48	8.9	1801	25	3/8" Square Drive	52	13.7	6.2	14.6	370
947563A2	5	35	3.69	25.8	681	25	3/8" Square Drive	52	13.7	6.2	14.6	370
947575A8	15	53	11.1	39.1	400	25	3/8" Square Drive	52	13.7	6.2	14.6	370
947527A6	25	110	18.5	81	838	25	1/2" Square Drive	59	21.4	9.7	16.6	421
947539A2	40	200	29.5	148	472	25	3/4" Square Drive	59	21.4	9.7	16.6	421
947587A4	50	300	36.9	221	437	25	3/4" Square Drive	81	43.7	19.8	19.9	506
947599A0	100	500	74	369	245	25	1" Square Drive	112	63	28.6	21.9	556
947613A1	130	660	96	487	167	25	1" Square Drive	112	63	28.7	21.9	556

Conventional Spindle Field Cables

Contact the application center for other cable lengths not listed



A		ATT584387	ATT661684	B	C	D	E
		Length					
Order Number	Size	Meters	Feet	Order Number	Order Number	Order Number	Order Number
961561-010	1	1	3	952343-002	9472769PT-002	9472769PT-002	943825PT-002
961561-060	1	6	19.5				
961561-250	1	25	82				
961923-010	2	1	3	952343-002	9472769PT-002	9472769PT-002	943825PT-002
961923-060	2	6	19.5				
961923-340	2	34	102				
961923-010	3	1	3	952343-003	9472769PT-002	9472769PT-002	943825PT-002
961923-060		6	19.5				
961923-340	3	34	102				
961923-010	4	1	3	952343-005	9472769PT-002	9472769PT-002	943825PT-002
961923-060		6	19.5				
961923-340	4	34	102	952343-007 (472800)			

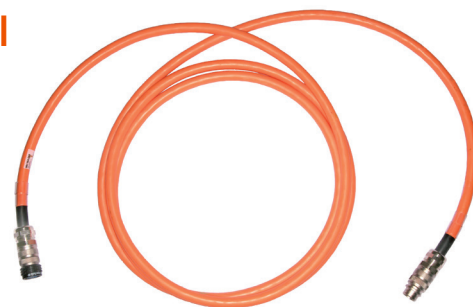
Mini Spindle Field Cable (30 and 50 series)

Model	Motor Size	Torque Range Max		X Dimension
		Ft Lb	Nm	in mm
S308434	1	44.3	60	6.61 168
S308435	2	118	160	6.77 172
S308436	3	384	520	6.92 176
S308437	1	44.3	60	6.61 168
S308438	2	81	110	6.55 166.5
S308439	3	221	300	6.73 171
S308440	4	384	520	6.88 175
S308450	2	148	200	6.77 172
S308474	4	487	660	6.73 171
S308475	2	148	200	6.55 166.5

Intelligent Spindle System Cable - Highflex Fiel Straight Connectors

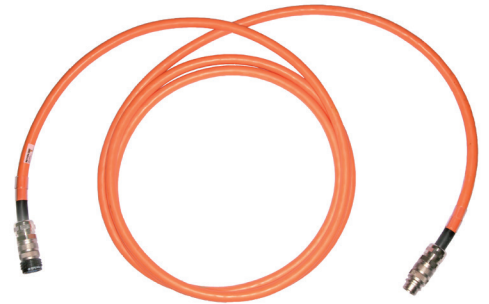
- For fixed or flexible routing with heavy-duty requirements in applications with cable drag chain or standard robot applications.

Model	Length	Length
	ft	m
961104-030	9.8	3
961104-040	13.1	4
961104-050	16.4	5
961104-060	19.7	6
961104-070	23	7
961104-080	26.2	8
961104-090	29.5	9
961104-100	32.8	10
961104-150	49.2	15
961104-200	65.6	20
961104-300	98.4	30
961104-400	131.2	40
961104-500	164.1	50



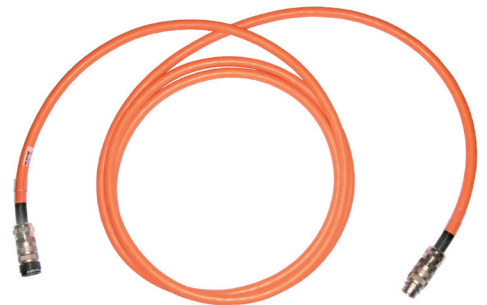
Intelligent Spindle System Cable - Highflex UL Field Cable - Straight Connectors

Model	Length	Length
	ft	m
961204-005	1.6	0.5
961204-010	32.8	1
961204-020	65.6	2
961204-100	328.1	10
961204-120	393.7	12
961204-150	492.2	15
961204-200	656.2	20
961204-300	984.3	30



Intelligent Spindle System Cable - Highflex UL Field Cable - Angle to Straight Connectors

Model	Length	Length
	ft	m
96169-150	492.2	15



Intelligent Spindle System Cable - Highflex Jumper - Straight Connectors

- Highflex Type D Jumper straight connector on both sides
- Moulded connector housing

Model	Length	
	ft	m
961104-005	1.6	0.5
961104-010	3.3	1
961104-020	6.6	2

The cable lengths are specified in decimeters at the end of the order number.
Other cable length on request.



Intelligent Spindle System Cable - Highflex Jumper - Angle Connectors

- Highflex Type E Jumper 90° connector on both sides
- Rotatable cable glands

Model	Length	
	ft	m
961299-005	1.6	0.5
961299-010	3.3	1
961299-020	6.6	2

The cable lengths are specified in decimeters at the end of the order number.
Other cable length on request.



Power Table

Overview of possible numbers of channels

The maximum number of Intelligent Spindles per mPro400GC Controller depends on load. When calculating the maximum number of spindles, please consider the following conditions:

■ Maximum speed at 20% of maximum torque (at 1BTSE, 2BTSE, 3BTSE and 4BTSE)

■ Final tightening stage up to 500 Nm Maximal Speed 50 rpm at maximum torque (at 1BTSE, 2BTSE, 3BTSE and 4BTSE-4B500A...)

■ Final tightening stage over 500 Nm Maximal Speed 20 rpm at maximum torque (at 4BTSE-4B660A..., 4BTSE-4B660A-4VK4MS, 4BTSE-4B360A-4Z1250A and 4BTSE-4B460A-4Z1600A)

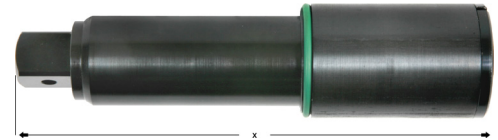
If higher settings are chosen, number of channels should be reduced.

If different spindle types are used at the controller, the number of channels will be individually defined. Please contact Apex Tool Group.

Model	Motor Size	Torque Range Max		X Dimension in mm
		Ft Lb	Nm	
S308434	1	44.3	60	6.61 168
S308435	2	118	160	6.77 172
S308436	3	384	520	6.92 176
S308437	1	44.3	60	6.61 168
S308438	2	81	110	6.55 166.5
S308439	3	221	300	6.73 171
S308440	4	384	520	6.88 175
S308450	2	148	200	6.77 172
S308474	4	487	660	6.73 171
S308475	2	148	200	6.55 166.5

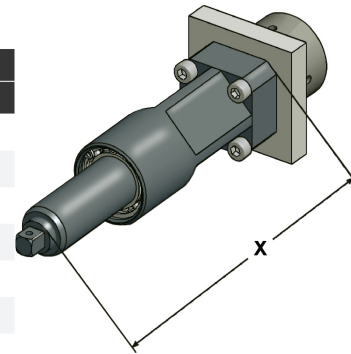
Floating Adaptor

Model	Motor Size	Torque Range Max		X Dimension in mm
		Ft Lb	Nm	
910609	2	118	160	7.08 180
910613	3	384	520	7.28 185
912106	4	384	520	7.48 190
912147	4	554	750	7.32 186
916642	4	465	630	7.28 185
916643	4	384	520	7.48 190
922325PT	1	44.3	60	7.08 180
935552	2	148	200	7.08 180
S308441	4	1181	1600	5.31 140
S976956	4	554	750	5.31 140



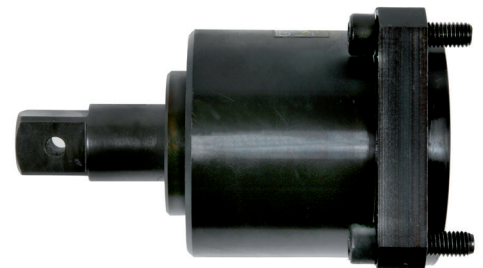
Floating Adaptor Including Flange Housing

Model	Motor Size	Torque Range Max		X Dimension in mm
		Ft Lb	Nm	
S308434	1	44.3	60	6.61 168
S308435	2	118	160	6.77 172
S308436	3	384	520	6.92 176
S308437	1	44.3	60	6.61 168
S308438	2	81	110	6.55 166.5
S308439	3	221	300	6.73 171
S308440	4	384	520	6.88 175
S308450	2	148	200	6.77 172
S308474	4	487	660	6.73 171
S308475	2	148	200	6.55 166.5



Floating Adaptor Including Flange Housing for Right Angle Drive

Model	Motor Size	Torque Range Max		X Dimension in mm
		Ft Lb	Nm	
929041	1	44.3	60	2.95 75
929053	2	125	170	3.54 90
929061	2	148	200	4.52 115
929065	3	221	300	4.13 105
929077	4	384	520	4.52 115
929089	4	487	660	4.52 115



Cleco

CONTROLLERS & SOFTWARE



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MAXIMIZE VERSATILITY.

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Our versatile Controller Systems manage a wide variety of assembly tools and applications, delivering advanced process configurations and flexible tightening solutions.



Controller Selection Guide

Cleco makes it easy to find the right Controller system for your tools and applications.

mPro Controllers	CellTek	CellCore	NeoTek	LiveWire	18/48 Nutrunner	I-Wrench	Conventional Spindles	Mini Spindles	Intelligent Spindles
mPro400GCD-P	✓	✓	✓	✓	✓	✓			✓
mPro400GCD-M	✓	✓		✓		✓			✓
mPro400GCD-SH					✓				
mPro400GCD-BTS			✓						✓
mPro300GCD			✓					✓	
mPro300GCD-STO							✓		
mPro200GC	✓	✓		✓		✓			
mPro200GC-AP	✓	✓		✓		✓			



Software Solutions

mProRemote - TorqueNet - Tightening Parameter Server - Dashboards



Data Management

- Streamline enforcement of access, provisioning, and lifecycle management of parameters
- Provide complete and unified control over content, modification, users and security
- Provides easy access to collected production data via web browser



Product Optimization

- Remote management allows you to push changes to production from the software versus having to physically walk or go to the production line
- Convenient monitoring for use and location of all applications enables you to easily identify which tightening parameters are used in a given location



Error Prevention

- User-specific views in the dashboard provide meaningful data analysis that is relevant and actionable
- Change management capabilities provide ultimate control over authorizing changes prior enabling in production



Quality Assurance

- Application archiving & rollback capabilities save application revisions so they can easily be reinstated into production
- Visibility & traceability features allow you to review who, what, why and when a change was implemented

For more information on the production benefits of Cleco Software Solutions, visit <https://www.clecotools.com/cleco-care/software-solutions>

mPro400GCD - Global Controller - Transducer Control - Hybrid

For corded and cordless tools. Provides unsurpassed levels of flexibility, connectivity, and serviceability while providing superb torque accuracy and process control for safety-critical applications.

- Supports: NeoTek 30/50/70 Series, LiveWire, 18/48/17/47/67 Series, and Conventional BB Spindles
- Transducer Controlled
- Controls up to 16 corded/cordless tools
- User friendly 8.5" interactive screen enables simple programming and quick access to tightening data
- Standard CompactFlash memory card stores up to 10,000* run downs and can be easily switched between controllers with a reboot time under a minute
- Remote programming software enables control of the production process from anywhere



Model	Tool Compatibility	Height	Depth	Width	Weight	
		in	in	in	Lb	kg
mPro400GCD-M	LiveWire CellCore CellTek Intelligent Spindles	15	11.34	10.5	21.3	9.7
MPro400GCD-M-AP	Livewire, Cellcore, Celltek, Intelligent Spindles	15	11.34	10.5	21.3	9.7
mPro400GCD-P	NeoTek 30/50/70 Series LiveWire CellCore CellTek 18/48/17/47/67 Series Conventional BB Spindles	15	11.34	10.5	30.2	13.7
mPro400GCD-SH	NeoTek 30/50/70 Series 18/48/17/47/67 Series Conventional BB Spindles	15	11.34	10.5	28.2	12.8

Note: 17/47/67 Series Tools require Adapter Cable 961789PT.

70 Series Tools require a 220/230 power supply to the controller.

Note: Larger capacity CompactFlash memory card can be added to increase number of stored run downs.

mPRO400GCD-P-BTS Global Controller Primary for Fixtured Intelligent Spindles

- This stand-alone system controller provides unsurpassed levels of flexibility, conductivity, and serviceability while providing superb torque accuracy and process control for safety-critical application.
- Control Capacity
 - Size 1: 2 Spindles
 - Size 2: 1 Spindle
 - Size 3: 1 Spindle
 - Size 4: 1 Spindle



Model	Tool Compatibility	Height	Depth	Width	Weight	
		in	in	in	Lb	kg
mPRO400GCD-P-BTS	Intelligent Spindles	15	11.34	10.5	30.2	13.7
mPro400GCD-P-STO	Intelligent Spindles	15	11.34	10.5	30.2	13.7

mPro300GCD - Global NeoTek Controller

The mPro300 Series Controller is specifically designed for NeoTek corded assembly tools. The mPro300 provides versatile protocol functionality and easy integration into plant systems.

- Designed for NeoTek Corded Assembly Tools
- The mPro300 Series Controller is specifically designed for NeoTek corded assembly tools. The mPro300 provides versatile protocol functionality and easy integration into plant systems.
- Connected Corded
- Dedicated one-to-one connected solution for NeoTek tools
- Easy to Use
- Large touch screen enables simple programming and quick access to tightening data
- Versatile
- Seamlessly integrate with multiple plant protocols



Model	Tool Compatibility	Height	Depth	Width	Weight	
		in	in	in	Lb	kg
mPro300GCD-APAC	NeoTek	16.1	11.7	5.6	25.6	11.61
mPro300GCD-EMEA	NeoTek	16.1	11.7	5.6	25.6	11.61
mPro300GCD-NA	NeoTek	16.1	11.7	5.6	25.6	11.61

mPro300GCD-STO - Global Controller - Controller Fixtured Spindles

The mPro300 Series Controller is specifically designed for BD Fixtured Spindles. The mPro300 provides versatile protocol functionality and easy integration into plant systems.

- Connected - Dedicated one-to-one connected solution for BD Fixtured Spindles
- Easy to Use - Large 7" touch screen enables simple programming and quick access to tightening data
- Versatile - Seamlessly integrate with multiple plant protocols
- Protection Class - IP42

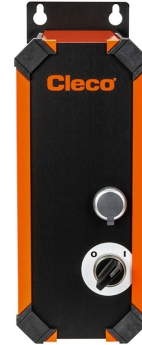


Model	Tool Compatibility	Height	Depth	Width	Weight	
		in	in	in	Lb	kg
mPro300GCD-STO-APAC	BD Fixtured Spindles	16.1	11.7	5.6	25.6	11.61
mPro300GCD-STOE-MEA	BD Fixtured Spindles	16.1	11.7	5.6	25.6	11.61
mPro300GCD-STONA	BD Fixtured Spindles	16.1	11.7	5.6	25.6	11.61

mPro200GC - Global Controller - Transducer Control

The mPro200 Controller can be connected to 10 Cleco cordless tools. Easily capture data in real time within a plant network.

- Compact - Save space on the line (4.5" vs. 10.5" on GCD400)
- Intelligent - 19 fastening strategies for all types of applications
- Easy to Use - Run remotely via mPro remote, or connect an external display using VGA output
- Standard CompactFlash memory card stores up to 10,000* run downs and can be easily switched between controllers with a reboot time under a minute
- Versatile - Compatible with CellCore, LiveWire and I-Wrench
- mPro200GC provided with North America 110V power cord only



Model	Tool Compatibility	Height	Depth	Width	Weight	
		in	in	in	Lb	kg
mPro200GC	LiveWire CellCore I-Wrench	13.4	12.6	4.4	7.1	3.23
mPro200GC-AP	LiveWire CellCore I-Wrench	13.4	12.6	4.4	7.5	3.43
mPro200GC-AP-G	LiveWire CellCore I-Wrench	13.4	12.6	4.4	7.5	3.43
mPro200GC-G	LiveWire CellCore I-Wrench	13.4	12.6	4.4	7.1	3.23

Note: Larger capacity CompactFlash memory card can be added to increase number of stored run downs.

Power Distribution System with mPro400SG Global Controller for Intelligent Spindles

- Graphic Interface
- Fully Programmable
- Local storage of 10,000 cycles
- LAN Capable
- Fieldbus options available



Model	Tool Compatibility	Height	Depth	Width
		in	in	in
S112849-SG	Spindles - Size 1&2 1.2/01-channel	14.2	11	18.9
S112850-SG	Spindles - Size 1&2 1.2/01-channel	14.9	13.8	30
S112870-SG	Spindles - Size 3&4 3/4 01-channel	14.9	13.8	30
S112871-SG	Spindles - Size 3&4 3/4 01-channel	14.9	13.8	30

mPro400GC-SG Global Controller - Panel Mounted

Panel mount installation

- Graphic Interface
- Fully Programmable
- Local storage of 10,000 cycles
- LAN Capable
- Fieldbus options available



Model	Tool Compatibility
-------	--------------------

MPRO-400GC-SG

LiveWire | Intelligent Spindles Size 1-4

Panel Mount can be used in different cabinet solutions.

Power Control Package

- Each Power Control Package consists of the following:
- mPro400 GC-M Global Controller
- PDB-CPS X power distribution box with viewing window
- Power transformer
- Stand

Model
MPRO400GCM PDBCPS3A
MPRO400GCM PDBCPS3T
MPRO400GCM PDBCPS6A
MPRO400GCM PDBCPS6T
MPRO400GCM PDBCPS9A
MPRO400GCM PDBCPS9T

T=PLC Siemens S7 for additional I/O



Power Distribution System for Intelligent Spindles

The Power Distribution System is used in conjunction with the Intelligent Spindles. This system is used for power distribution.

Model
PDB-CPS3
PDB-CPS6
PDB-CPS9

Includes standard hardware such as E stop circuitry, 24VDC power supply, line filter, CPM, necessary relays, disconnect and viewing window. External power transformer is required.



Power Distribution System - EU

The Power Distribution System is used in conjunction with the Intelligent Spindles. This system is used for power distribution.

Model
S112925-OC Power Modul CPM3
S112929-OC Power Modul CPM6
S112932-OC Power Modul CPM9

Includes standard hardware such as E stop circuitry, 24VDC power supply, line filter, CPM, necessary relays, disconnect and viewing window. External power transformer is required.



Torque Transducer Verification Fixture (TTVF)

Fast, accurate, cost effective way to verify your torque transducer on the assembly line measure.

Model
579900PT-1000
579900PT-200
579900PT-23
579900PT-500
579900PT-68

Included is a joint simulator, slip ring torque transducer and spindle adapter. The joint simulator can be mounted to a tooling plate or mounted to the spindle directly. Any data recorder with the proper interface can be used.



TSnet Cable

- Used to connect mPro400GCD-P, mPro400GCD-SH or mPro400GCD-M controllers



Model	Description
962037-002	.2 Meter TSnet Cable
962037-005	.5 Meter TSnet Cable
962037-010	1 Meter TSnet Cable
962037-020	2 Meter TSnet Cable
962037-030	3 Meter TSnet Cable
962037-040	4 Meter TSnet Cable
962037-050	5 Meter TSnet Cable
962037-100	10 Meter TSnet Cable
962037-200	20 Meter TSnet Cable
962037-300	30 Meter TSnet Cable
962037-500	50 Meter TSnet Cable

Fieldbus Module - Ethernet IP

- For use in mPro400 and mPro200 Series controllers (544172PT)
- For use in mPro300 (962297PT)



Model	Description
544172PT	Anybus Ethernet IP
962297PT	Anybus Ethernet IP

Fieldbus Module - Profibus

- For use in mPro400 and mPro200 Series controllers

Model	Description
544173PT	Anybus Profibus



Fieldbus Module - Profinet

- For use in mPro400 and mPro200 Series controllers

Model	Description
544174PT	Anybus Profinet



Fieldbus Module - Modbus - TCP

- For use in mPro400 and mPro200 Series controllers

Model	Description
544211PT	Anybus TCP Modbus Module



System Bus Termination Plug

- For use with system bus accessories and mPro400GC-S controllers

Model	Description
544197PT	System Bus Termination Plug



System Bus Termination Plug - EU

- For use with system bus accessories and mPro400GC-S controllers

Model	Description
S133412	System Bus Termination Plug



System Bus Cables for Intelligent Spindle

- Used to connect system bus accessories to mPro400 series controllers
- Used to connect Pro400GC-P, mPro400GC-S or mPro400GC-M controllers

Model	Description	Length	
		ft	m
544196-005	0.5 Meter System Bus Cable	1.6	0.5
544196-020	2 Meter System Bus Cable	6.6	2
544196-050	5 Meter System Bus Cable	16.4	5
544196-200	20 Meter System Bus Cable	65.6	20
544196-500	50 Meter System Bus Cable	164.1	50



16 I/O System Bus Expander

- Connects through system bus port
- Provides 16 additional 24v I/O connections

Model	Description
S133437	I/O Expansion Module - 16

Socket Tray - System Bus - 4 & 8 Position

- Connects through system bus port
- Quick and simple setup
- Can be networked with up to 31 additional accessories

Model	Description
S133410	4 Position Socket Tray
S133411	8 Position Socket Tray
S970716	Socket Tray Insert



Stack Light - System Bus - w/Buzzer

- Connects through system bus port
- Quick and simple setup
- Can be networked with up to 31 additional accessories

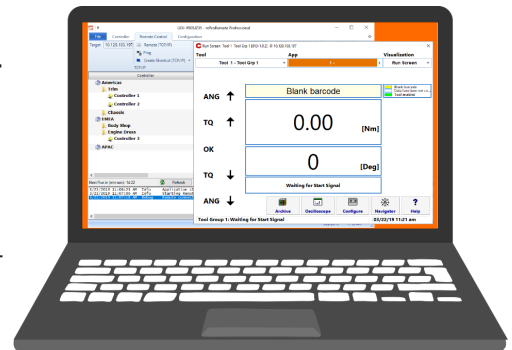
Model	Description
S133420	Stack Light With Buzzer



mProRemote - Software

Integrated software that enables programming of application parameters for a controller remotely

- Access controllers remotely from a networked PC or laptop
- Provides mirrored screen images of what operator on plant floor is seeing
- Monitor rundown results, make programming changes, and perform diagnostics in real-time

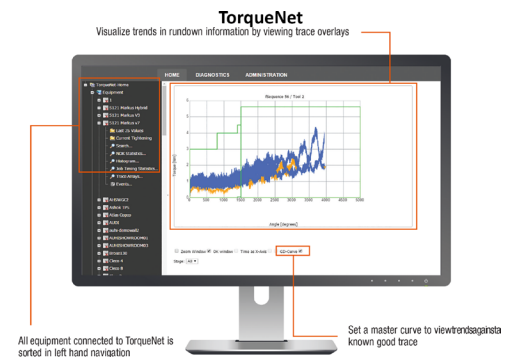


Model	Description
mProRemote	Provided with each mPro400GC-M & mPro400GC-P
TM-COM	Provided with each mPro400GC-E & mPro400GC-I

TorqueNet - Software Solutions

Enables data collection and analytics by making the plant floor data visible anywhere using an internet browser.

- Make your plant floor data visible anywhere using an internet browser
- Data is sent to a single location making critical production information accessible to all users within the tightening process on the assembly line
- Easily compare traces against known good traces
- Provides preventative maintenance notifications

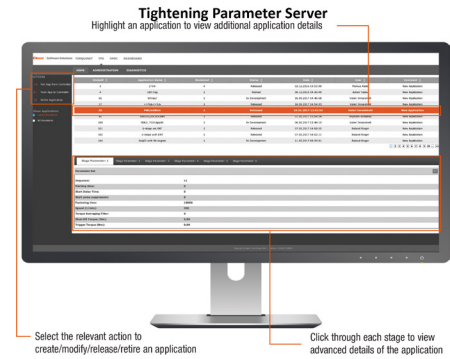


Model	Description	Min. Disk Space	Min. Operating System	Min. Processor Speed	Min. Ram	Min. Virtual Memory	Price Method
S168171-NT-4	TorqueNet Enterprise Single Spindle	30 GB	Windows Server 2008 - 2012 Windows 7/10	1.2 GHz	4 GB	8 GB	Per Spindle
S168171-PR-4	TorqueNet Professional Single Spindle	30 GB	Windows Server 2008 - 2012 Windows 7/10	1.2 GHz	4 GB	8 GB	Per Spindle
S168171-ST-4	TorqueNet Standard Single Spindle	30 GB	Windows Server 2008 - 2012 Windows 7/10	1.2 GHz	4 GB	8 GB	Per Spindle
S168696-ST-1	Open Protocol DC - TorqueNet Add-on	30 GB	Windows Server 2008 - 2012 Windows 7/10	1.2 GHz	4 GB	8 GB	Per Spindle

TPS - Software Solutions

Enables full control of tightening applications used across a plant or over multiple plants, effectively minimizing opportunities for costly issues.

- Central Application Management for efficiently managing tightening applications from a central location
- Provide real-time change management
- Application archiving and rollback capabilities
- Full control of tightening applications across one or multiple plants
- Accurately stores all controller information into a central database

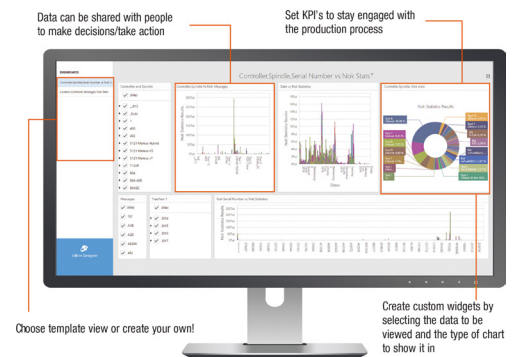


Model	Description	Min. Disk Space	Min. Operating System	Min. Processor Speed	Min. Ram	Min. Virtual Memory	Price Method
S168689-ST-2	Tightening Parameter Server (TPS) Single Spindle	30 GB	Windows Server 2008 - 2012 Windows 7/10	1.2 GHz	4 GB	8 GB	Per Spindle

Dashboard - Software Solutions

Improves analysis speed and performance through enabling comprehensive data analysis that is critical to manufacturing operations.

- Empowers with the ability to explore data through customized views
- User specific views enables quick navigation
- Share data to make decisions and take action
- Stay engaged with the production process by creating your own KPI's



Model	Description	Min. Disk Space	Min. Operating System	Min. Processor Speed	Min. Ram	Min. Virtual Memory	Price Method
S168703-ST-1	Dashboard Manager	30 GB	Windows Server 2008 - 2012 Windows 7/10	1.2 GHz	4 GB	8 GB	Per Spindle

2 CPU cores or more recommended.
Additional disk space may be required depending on total number of spindles.
TorqueNet Standard to Pro and TorqueNet Standard to Enterprise upgrade packages are also available.
TorqueNet Pro to Enterprise upgrade package available.
Please contact your Cleco Sales Representative for more details.

Cleco

IMPACT WRENCHES



Cleco | Tame the Line

SHOWN: IMPACT WRENCH

IMPACT WRENCHES

TOUGH TOOLS. EASY CHOICE.

For over 120 Years, Cleco has exclusively supplied the global industrial market. Where other tools are born and bred for garages and tire shops, we make tools that are engineered and primed for the most grueling industrial environments.

Where other tools weaken, seize, or become difficult to repair, our tools will endure and keep on tackling your toughest challenges. Count on Cleco Industrial Air Impact Wrenches for TOUGH TOOLS. EASY CHOICE.



MP2264B & MP2265B Series - Impact Wrench

Smooth and efficient impacting mechanism creates no reaction for the operator

- Smooth and efficient impacting mechanism creates no reaction for the operator
- One-hand forward reverse switch
- Rugged metal housing and components outlasts the competition
- Efficient and balanced design maximizes accessibility while minimizing operator fatigue
- 1/4" Quick Change or 3/8" Square with Pin Detent



Model	Torque Range Max		Blows Per Minute	Free Speed r/min	Air Consumption Scfm	Weight Lb	Drive Size in	Drive Type	Air Inlet Size in
	Ft Lb	Nm							
MP2264B	111	150	2000	10000	33	2.16	1/4 in	Hex Quick Change	1/4
MP2265B	111	150	2000	10000	33	2.16	3/8 in	Pin-Detent Square	1/4

MP Series - Inline Impacting Driver

Smooth and efficient impacting mechanism creates no reaction for the operator

- Smooth and efficient impacting mechanism creates no reaction for the operator
- Inline to access certain applications with better ergonomics
- Rugged metal housing and components for long life
- Efficient and balanced design maximizes accessibility while minimizing operator fatigue



Model	Torque Range Max		Blows Per Minute	Free Speed r/min	Air Consumption Scfm	Weight Lb	Drive Size in	Drive Type	Air Inlet Size in
	Ft Lb	Nm							
MP2271	65	88.1	900	10500	22	2.2	3/8 in	Square	1/4

CV Composite Series - Impact Wrench

Excellent combination of performance, comfort, and value

- Excellent combination of performance, comfort, and value
- Powerful twin hammer mechanism
- Variable speed trigger
- Light-weight and ergonomically balanced
- Ideal for general industrial production, maintenance, and overhaul.



Model	Torque Range Max		Brea-kaway Torque Ft Lb	Blows Per Minute	Free Speed r/min	Air Consumption Scfm	Weight Lb	Drive Size in	Drive Type	Air Inlet Size in
	Ft Lb	Nm								
CV-375P	420	569	510	1600	8000	32	2.91	3/8 in	Pin Anvil or Pin Hole	1/4
CV-375R	420	569	510	1600	8000	32	2.91	3/8 in	Retaining Ring	1/4
CV-500P	780	1058	1100	1200	8500	40.5	4.8	1/2 in	Pin Anvil or Pin Hole	1/4
CV-500R	780	1058	1100	1200	8500	40.5	4.8	1/2 in	Retaining Ring	1/4
CV-750P	1300	1763	1500	1000	5500	64	8.2	3/4 in	Pin Anvil or Pin Hole	3/8
CV-750P-8	1300	1763	1500	1000	5500	64	8.3	1 in	Pin Anvil or Pin Hole	3/8

CWC Premium Composite Series - Impact Wrench

Ultimate combination of power, durability, and features

- Great combination of power, durability, and features
- Triple heat treated twin hammer mechanism
- Variable speed trigger
- User-preferred one-hand direction control
- Ideal for heavy industries and fast-paced production environments



Model	Torque Range Max		Brea-kaway Torque	Blows Per Minute	Free Speed	Air Consumption	Weight	Drive Size	Drive Type	Air Inlet Size
	Ft Lb	Nm								
CWC-250QC	50	68	75	1200	13000	19.5	1.9	1/4 in	Quick Change	1/4
CWC-250R	50	68	75	1200	13000	19.5	1.9	1/4 in	Retaining Ring	1/4
CWC-375P	450	610	550	1600	10000	37.5	2.91	3/8 in	Pin Anvil or Pin Hole	1/4
CWC-375R	450	610	550	1600	10000	37.5	2.91	3/8 in	Retaining Ring	1/4
CWC-375R-4	450	610	550	1600	10000	37.5	2.91	1/2 in	Retaining Ring	1/4
CWC-500P	800	1085	1180	1250	8000	40.5	4.41	1/2 in	Pin Anvil or Pin Hole	1/4
CWC-500R	800	1085	1180	1250	8000	40.5	4.41	1/2 in	Retaining Ring	1/4
CWC-750P	1400	1898	1800	1200	6500	69	7.6	3/4 in	Pin Anvil or Pin Hole	3/8

CWM Metal Housing Series - Impact Wrench

Engineered to outperform the competition in the harshest environments

- Engineered to outperform the competition in the harshest environments
- Triple heat treated twin hammer mechanism
- Variable speed trigger
- Durable all-metal housing
- Ideal for heavy industries and demanding environments



Model	Torque Range Max		Brea-kaway Torque	Blows Per Minute	Free Speed	Air Consumption	Weight	Drive Size	Drive Type	Air Inlet Size
	Ft Lb	Nm								
CWM-375P	340	450	450	1400	12000	26.9	3.31	3/8 in	Pin Anvil or Pin Hole	1/4
CWM-375R	340	450	450	1400	12000	26.9	3.31	3/8 in	Retaining Ring	1/4
CWM-500P	850	1200	1200	1200	9000	39.8	5.8	1/2 in	Pin Anvil or Pin Hole	1/4
CWM-500R	850	1200	1200	1200	9000	39.8	5.8	1/2 in	Retaining Ring	1/4
CWM-750P	1350	2339	1725	1200	6000	54	10.4	3/4 in	Pin Anvil or Pin Hole	3/8

Cleco

PULSE TOOLS



Cleco | Tame the Line

SHOWN: H SERIES PISTOL GRIP

PULSE TOOLS

**DURABLE.
ECONOMICAL.
LOW MAINTENANCE.**

Cleco Pulse Tools are a proven solution for higher torque applications.

Durable by design with market leading repeatability on hard and soft joints.

The high rundown speed, excellent power to weight ratio and low vibration make these the ergonomic tool of choice.





Outstanding Ergonomics

Leading motor design combined with new body development provides exceptional biotechnology. Less vibrations allow for greater operator comfort.



Powerful and Efficient 3-Chamber Air Motor

With speed governor and oilless blades. Reduces tightening time with increased torque. Unique design reduces blade wear and lowers total cost of ownership.



3-Chamber Motor Housing



50% Lower Air Consumption @ Free-Speed

Innovative centrifugal speed control does not release the entire capacity before run down has ended. Enables operation to as low as 4 bar. Lower air consumption drives lower cost of ownership.



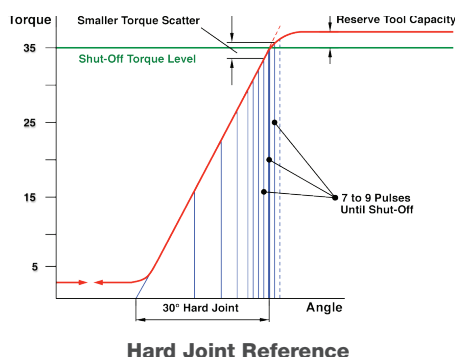
Easy Torque Set-Up

Simply insert hex into rear port of tool.



High-Precision Shut-Off


Mechanism ranges close to electric tool characteristics at a tolerance of $\pm 10\%$ at Six Sigma.



Easily Adjustable Motor Speed

Ensures accuracy on hard joints. Can be locked into place to prevent accidental modification.



Reduced Tool Maintenance
 Double-chambered pulse unit with built-in automatic oil reserve. Up to 500.000 cycles before the first service.

Pulse Unit Delivers market-leading repeatability for hard and soft joints.



Drive Spindle Bearing



H Series 2.9-88ftlb/ 4-120Nm - Pistol Grip - Shut-Off

Market leading repeatability unmatched accuracy, low maintenance, inertia shut-off, low noise level, efficient 3 chamber air motor, external speed control, oil less blades reversible torque signal port

- Durable, Economical low maintenance
- Adaptor 935472 available 3/8" Square to 7/16" Quick Change



Model Number Nomenclature

120	P	T	H	H	A	XX	Q
Maximum Torque Output 7 - 400 Nm	Tool Configuration P - Pistol S - Inline	Torque Control (-) - Non-Shut-Off T - Air Shut-Off	Torque Delivery H - Hydraulic	Vintage	Speed 40-4000 RPM	Air Feed A - Top air feed	Output Termination Q - Quick-change 2 - 1/4" Sq. Dr. 3 - 3/8" Sq. Dr. 4 - 1/2" Sq. Dr. 6 - 3/4" Sq. Dr.

Model	Output Drive	Torque Range				Free Speed r/min	Weight Lb	Air Consumption		
		Min Ft Lb	Max Ft Lb	Min Nm	Max Nm			NPT	Hose I.D.	Scfm
7PTHH35Q	1/4" Quick Change	2.95	5.2	4	7	3500	1.74	1/4	3/8	7.06
11PTHH353	3/8" Square Drive	4.43	8.1	6	11	3500	1.83	1/4	3/8	7.06
11PTHH35Q	1/4" Quick Change	4.43	8.1	6	11	3500	1.87	1/4	3/8	7.06
20PTHH403	3/8" Square Drive	7.4	14.8	10	20	4000	1.9	1/4	1/2	8.70
20PTHH40Q	1/4" Quick Change	7.4	14.8	10	20	4000	1.92	1/4	1/2	8.70
35PTHH403	3/8" Square Drive	14.8	25.8	20	35	4000	2.45	1/4	1/2	15.90
35PTHH40Q	1/4" Quick Change	14.8	25.8	20	35	4000	2.31	1/4	1/2	15.90
35PTHHA403	3/8" Square Drive	14.8	25.8	20	35	4000	2.45	1/4	1/2	15.90
55PTHH403	3/8" Square Drive	22.1	40.6	30	55	4000	2.54	1/4	1/2	15.90
55PTHHA403	3/8" Square Drive	22.1	40.6	30	55	4000	2.67	1/4	1/2	15.90
80PTHH354	1/2" Square Drive	36.9	59	50	80	3500	3.09	1/4	3/8	19.40
80PTHHA354	1/2" Square Drive	36.9	59	50	80	3500	3.31	1/4	3/8	19.40
120PTHH304	1/2" Square Drive	55	89	75	120	3000	3.75	3/8	1/2	19.40
120PTHHA304	1/2" Square Drive	55	89	75	120	3000	3.86	3/8	1/2	19.40

7/16" Quick Change Chuck available separately as an accessory

H series - 2.9-88ftlbs / 4-120Nm Pistol Grip - Non Shut-Off

Durable, Economical low maintenance low noise levels efficient air motor
external speed control, external speed control, oil less blades reversible

- Durable, Economical low maintenance
- Adaptor 935472 available 3/8" Square to 7/16" Quick Change



Model	Output Drive	Torque Range				Free Speed r/min	Weight Lb	Air Consumption		
		Min Ft Lb	Max Ft Lb	Min Nm	Max Nm			NPT	Hose I.D.	Scfm
7PHH60Q	1/4" Square Drive	2.95	5.2	4	7	6000	1.74	1/4	3/8	8.7
11PHH653	3/8" Square Drive	4.43	8.1	6	11	6500	1.74	1/4	3/8	10.5
11PHH65Q	1/4" Square Drive	4.43	8.1	6	11	6500	1.76	1/4	3/8	10.5
20PHH753	3/8" Square Drive	7.4	14.8	10	20	7500	1.85	1/4	3/8	17.3
20PHH75Q	1/4" Square Drive	7.4	14.8	10	20	7500	1.9	1/4	3/8	17.3
35PHH653	3/8" Square Drive	14.8	25.8	20	35	6500	2.25	1/4	3/8	19.4
35PHH65Q	1/4" Square Drive	14.8	25.8	20	35	6500	2.29	1/4	3/8	15.9
55PHH603	3/8" Square Drive	22.1	40.6	30	55	6000	2.47	1/4	3/8	22.9
80PHH604	1/2" Square Drive	36.9	59	50	80	6000	3.09	1/4	3/8	26.5
120PHH554	1/2" Square Drive	55	89	75	120	5500	3.64	3/8	1/2	30

7/16" Quick Change Chuck available separately as an accessory

C Series - High Torque 74-295ftlbs / 100-400Nm - Pistol Grip - Non-Shut-off

Durable, Economical low maintenance low noise levels efficient air motor external speed control, oil less blades reversible

- Durable, Economical low maintenance

Model	Output Drive	Torque Range				Free Speed	Weight	Air Consumption		
		Min Ft Lb	Max Ft Lb	Min Nm	Max Nm	r/min	Lb	NPT	Hose I.D.	Scfm
160PH456	3/4" Square Drive	74	118	100	160	4500	5.7	3/8	1/2	31.7
250PHF406	3/4" Square Drive	118	185	160	250	4000	8.6	3/8	1/2	40.6
400PHF356	3/4" Square Drive	185	295	250	400	3500	11.5	3/8	1/2	42.3



C Series 74-295ftlbs / 100-400Nm - Pistol Grip - Shut-Off

Durable, Economical low maintenance low noise levels, external speed control efficient air motor reversible torque signal port

- Durable, Economical low maintenance

Model	Output Drive	Torque Range				Free Speed	Weight	Air Consumption		
		Min Ft Lb	Max Ft Lb	Min Nm	Max Nm	r/min	Lb	NPT	Hose I.D.	Scfm
160PTHC256	3/4" Square Drive	74	118	100	160	2500	5.7	3/8	1/2	25.4
250PTHFC226	3/4" Square Drive	118	185	160	250	2200	8.8	3/8	1/2	33.5
400PTHFC206	3/4" Square Drive	185	295	250	400	2000	11.7	3/8	1/2	33.5



C Series 1.9-25.8ftlbs / 2.6-35Nm - In-Line - Shut Off

Durable, Economical low maintenance low noise levels, external speed control, efficient air motor, reversible, torque signal port



- Durable, Economical low maintenance

Model	Output Drive	Torque Range				Free Speed	Weight	Air Consumption		
		Min Ft Lb	Max Ft Lb	Min Nm	Max Nm	r/min	Lb	NPT	Hose I.D.	Scfm
15STHC40Q	1/4" Quick Change			5	15	3000	2.43	1/4	3/8	0.1
15STHFC40Q	1/4" Quick Change	3.6	11	5	15	4000	2.43	1/4	3/8	0.1
35STHFC40Q	1/2" Square Drive	12	26	12	35	4000	3.31	1/4	3/8	1.5
35STHFC40Q	7/16" Quick Change	12	26	15	35	4000	3.31	1/4	3/8	1.5
7STHFC55Q	1/4" Quick Change	1.9	4.9	2.6	6.6	5500	2.05	1/8	3/8	7

Pulse Tools - Rubber Tool Stand

Rubber tool stand for pulse tools.

- Rubber tool stand provides protection for tool when not in use
- Two sizes - 931041 70mm opening, 930119 110mm opening
- Mounting holes to attach to work benches 2 x M6 on 70mm centers

Model	Description
930119	For Tool Series 7PTH-120PTH
931041	For Tool Series 140/160/250/400



Pulse Tools - 7/16" Quick Change Chuck Adapter

Converts to quick-change chuck

- Adapts 3/8" Square to 7/16" Quick Change

Model	Description
935472	Adapts 3/8" Square to 7/16" Quick Change



Pulse Tools - Vibration Absorber

Model	Description
935965	For Tool Series 35/55
935966	For Tool Series 80/110/120



Pulse Tools - Covers

Model	Description
937442PT	For Tool Series 7/11/20PTHHA/PHHA
937443PT	For Tool Series 35PTHHA/PHHA
937444PT	For Tool Series 55PTHHA/PHHA
937445PT	For Tool Series 80PTHHA/PHHA
937446PT	For Tool Series 110/120PTHHA/PHHA
937447PT	For Tool Series 7/11/20PTHHA/PHHA
937448PT	For Tool Series 35PTHH/PHH
937449PT	For Tool Series 55PTHH/PHH
937450PT	For Tool Series 80PTHH/PHH
937451PT	For Tool Series 110/120PTHH/PHH



Cleco

TORQUE WRENCHES

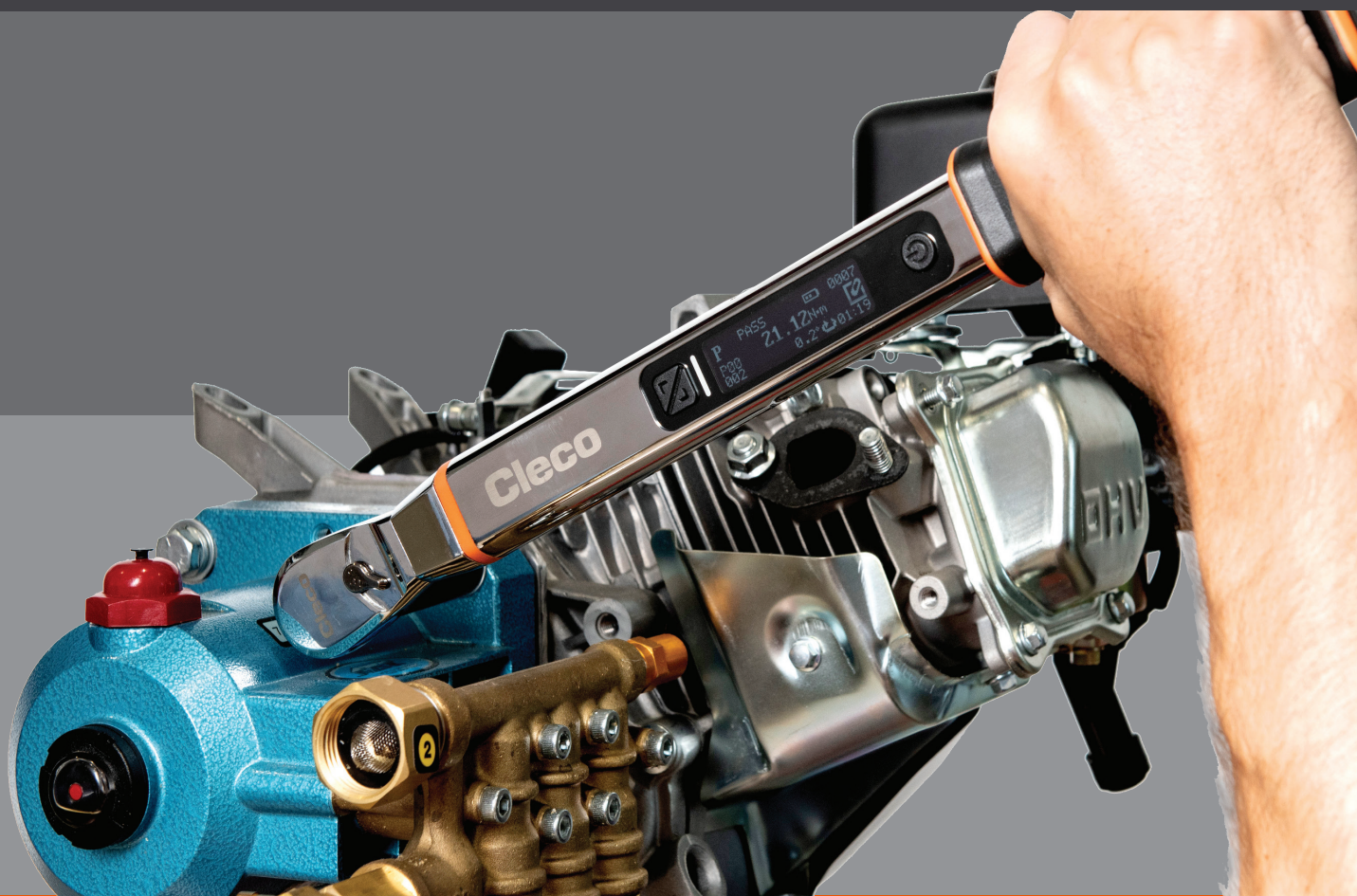


TORQUE WRENCHES

ACCURACY MADE TO LAST.

INDUSTRIAL TORQUE WRENCHES
THAT PROVIDE **REPEATABLE**
ACCURACY FOR **TOUGH**
APPLICATIONS.

Regardless of industry when there is a requirement for accurate torque application Cleco® has the right tool for the job. From safety to quality-critical applications Cleco industrial torque wrenches are the product for your specific application and are compliant with global fastening standards.



Cleco ETWA Advanced Electronic Torque Wrenches

- Accurate: Torque accuracy of +/-1.5% CW and +/-2.5% CCW angle settings offer +/-1% reading of angle accuracy
- Durable: Increase uptime with up to 100K cycles between calibration
- Operator Feedback: Vibrating handle, buzzer and tracking LED light indicate when target is reached
- Connectivity: USB connection with PC software interface
- Includes 2 x rechargeable lithium ion battery, charging cradle and USB-A to USB-C cable for charging/PC software
- 1 year limited warranty.



Model	Description	Torque Range Min (ft/lb)	Torque Range Min (Nm)	Torque Range Max		Weight	
		Ft Lb	Nm	Ft Lb	Nm	Lb	kg
ETWA100IC	3/8" 120XP™ Cleco E-Spec Electronic Interchangeable Head Torque Wrench 20-100Nm	15	20	74	100	2.9	1.3
ETWA25IC	1/4" 120XP™ Cleco E-Spec Cleco Electronic Interchangeable Head Torque Wrench 5-25Nm	4	5	18	25	2.9	1.22
ETWA27IC	3/8" 120XP™ Cleco E-Spec Cleco Electronic Interchangeable Head Torque Wrench 5.6-28Nm	4.1	5.6	20.6	28	2.9	1.3
ETWA340IC	1/2" 120XP™ Cleco E-Spec Electronic Interchangeable Head Torque Wrench 68-340Nm	50	68	250	340	5.1	2.3

Cleco ETWB Basic Electronic Torque Wrenches

- Accurate: Torque Accuracy of +3% CW applies to the upper 80% of wrench capability
- Easy to Use: 10 available preset torque settings allow you to quickly access frequently-repeated applications
- Versatile: 3 function modes feature peak torque, angle and peak angle for additional versatility
- Operator Feedback: Digitally tracks torque and angle measurements. Vibrating handle, buzzer and LCD screen alert when target torque is reached
- 1 year limited warranty
- Conforms with ISO 6789 and ASME B107.300-2022 standards and specifications



Model	Description	Torque Range Min (ft/lb)	Torque Range Min (Nm)	Torque Range Max		Size	Weight	
		Ft Lb	Nm	Ft Lb	Nm		Lb	kg
ETWB135FR	3/8" 120XP™ Cleco Flex Head Electronic Torque Wrench with Angle 13.5-135Nm	10	13.5	100	135	5° - 999° Angle	1.8	0.8
ETWB27FR	1/4" 120XP™ Cleco Flex Head Electronic Torque Wrench with Angle 2.7-27Nm	2	2.7	20	27	5° - 999° Angle	1.5	0.68
ETWB340FR	1/2" 120XP™ Cleco Flex Head Electronic Torque Wrench with Angle 34 - 340Nm	25	34	250	340	5° - 999° Angle	2.9	1.3

Cleco PTW Preset Mechanical Torque Wrenches

- Accurate: Torque accuracy of +/- 4% CW* delivering precise control to your safety and quality-critical tightening applications.
- Durable: Designed and tested for 100K cycles before recertification providing exceptional durability and reliability.
- Versatile: Industry standard interchange sizes (9x12 and 14x18) that easily integrate into your existing workflow.
- Accessibility: Supplied with a 120XP ball lock ratchet head boasting a minimal 3° swing arc making it ideal in tight spaces.
- Comfort grip with line indicating correct operating position
- Conforms with ASME B107.300-2022 standards and specifications
- Tamper proof preset beneath a cover, using standard Torx® wrench PTW05IC T20, PTW25IC/PTW50IC T30, PTW100IC/PTW200IC T40 - Not Supplied.



Model	Torque Range Min		Torque Range Max		Weight	
	Ft Lb	Nm	Ft Lb	Nm	Lb	kg
PTW05IC	0.8 ft/lb	1 Nm	3.8	5	0.36	.16
PTW100IC	15 ft/lb	20 Nm	74	100	1.80	.82
PTW200IC	30 ft/lb	40 Nm	148	200	2.35	1.07
PTW25IC	3.8 ft/lb	5 Nm	18.4	25	1.04	.47
PTW50IC	7 ft/lb	10 Nm	37	50	1.04	.47

Utica Torque Limiting Screwdriver - Adjustable - Standard

- Product calibrated right hand only.
- Adjustable model with precision micrometer scale.
- Accuracy is ±6% of setting, starting at 20% of full scale to full scale. Right hand only.
- Precision micrometer scale (adjustable models) calibrated in inch-ounces or inch-pounds.
- Easy-release 1/4" Hex bit holders securely retain bits during operation while permitting easy removal.
- Anti-backlash design for repeatability.



Model	Description	Type	Weight
			Lb
TS-100	20-100 inoz in 2 inoz increments - Black Collar	U.S. Standard	0.51
TS-30	6 -30 inlb in 1 inlb increments - Red Collar	U.S. Standard	0.51
TS-35	6 -36 inlb in 1 inlb increments - Blue Collar	U.S. Standard	0.51

Utica Torque Limiting Screwdriver Kits - Adjustable - Standard

- Product calibrated right hand only.
- Adjustable model with precision micrometer scale.
- Accuracy is ±6% of setting, starting at 20% of full scale to full scale. Right hand only.
- Precision micrometer scale (adjustable models) calibrated in inch-ounces or inch-pounds.
- Easy-release bit holders securely retain bits during operation while permitting easy removal.
- Anti-backlash design for repeatability.



Model	Description
KT-100	Screwdriver Kit - 20 Piece Kit with TS-100
KT-130	Screwdriver Kit - 43 Piece Kit with TS-30 & TS-100
KT-30	Screwdriver Kit - 24 Piece Kit with TS-30

Utica Torque Limiting Screwdriver - Adjustable - Miniature

- Specifically designed for reliable tightening of the very smallest threaded fasteners.
- Largest model weighs only 1 oz.
- Reach set torque and slip to prevent over-torquing of delicate components.
- Accuracy ±6%, right hand only. Meets or exceeds ASME B107.14M and ISO 6789 specifications.
- Use miniature universal bits tang drive



Model	Description	Weight	Length
		Lb	in mm
TT-1	5-20 inoz in 1/4" inoz increments	0.066	3.625 in 92 mm



Utica Torque Limiting Screwdriver - Preset - Miniature

- Specifically designed for reliable tightening of the very smallest threaded fasteners.
- Largest model weighs only 1 oz.
- Reach set torque and slip to prevent over-torquing of delicate components.
- Accuracy $\pm 6\%$, right hand only. Meets or exceeds ASME B107.14M and ISO 6789 specifications.
- Use miniature universal bits tang drive



Model	Description	Weight	Length
		Lb	in mm
TT-SN-1	Can be preset within ranges 5-30 inoz / .33-2.0Nm	0.066	3.625 in 92 mm

Utica Torque Limiting Screwdriver - Preset - Standard

- Product calibrated right hand only.
- Easy-release 1/4" hex bit holders securely retain bits during operation while permitting easy removal.
- Preset Model

Model	Description
TS-SN-1	Can be preset within ranges 1.5 -10 inlb / 20-150 inoz / .15-1.1Nm
TS-SN-2	Can be preset within ranges 8 -40 inlb / 128-640 inoz / .1-4.5Nm



Cleco

MOUNTABLE POWER MOTORS



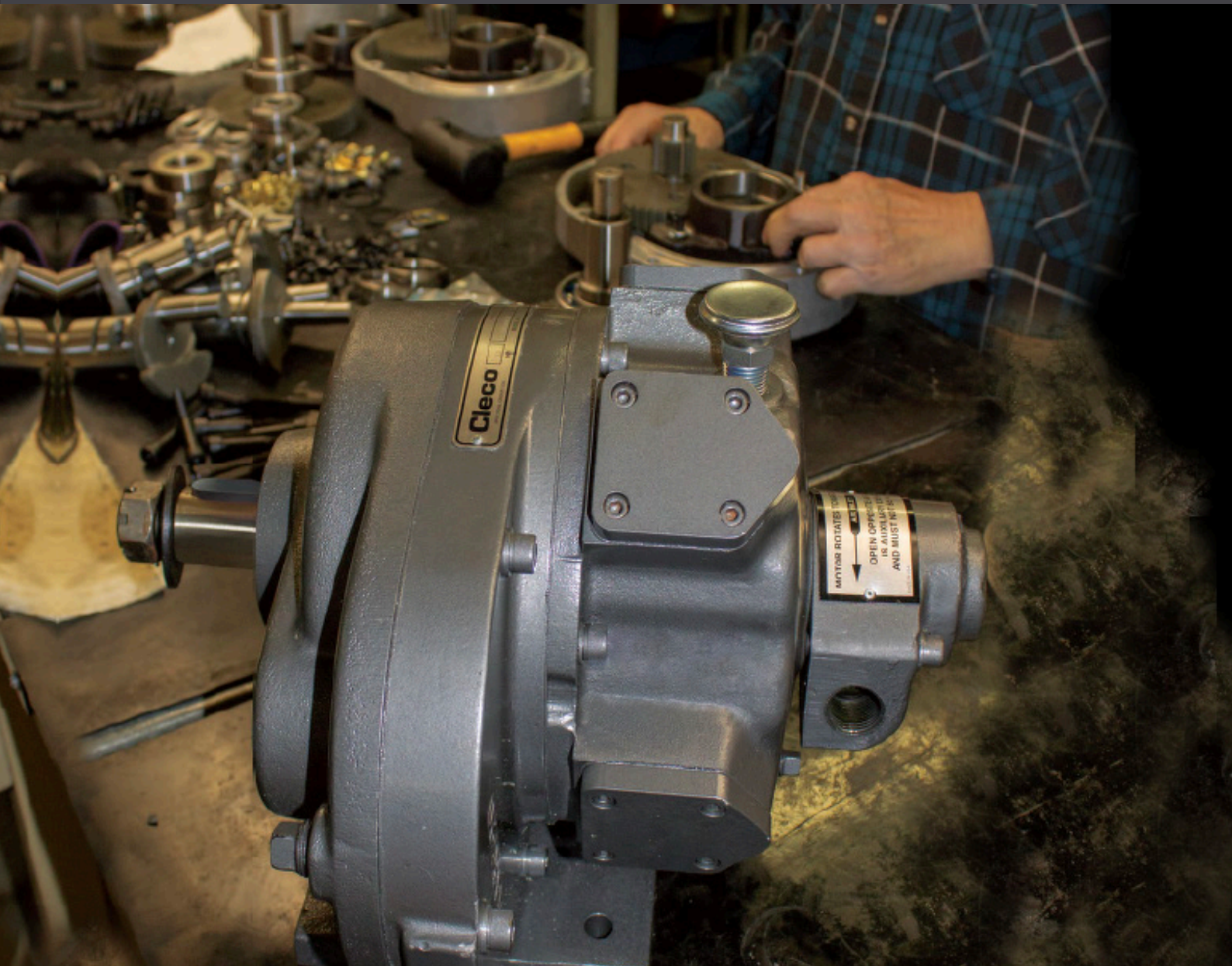
Cleco | Tame the Line

SHOWN: MA3 SERIES - AIR MOTOR

MOUNTABLE POWER MOTORS

**Choose the right
Air Motor to fit your
application.**

Apex Tool Group's air motors are engineered for flexibility and reliability. Cleco air motors cover a wide range of uses where compressed air is advantageous: powering air driven machinery, raising foundry copes and drags, rotating a turntable, mixing paint, powering cranes, valve actuation, or power source for mechanical hands or universal joints.



22 Series - Air Motor - Rotary Vane - Reversible/Non Reversible

Maximum Power 0.7 hp | 0.52 kw

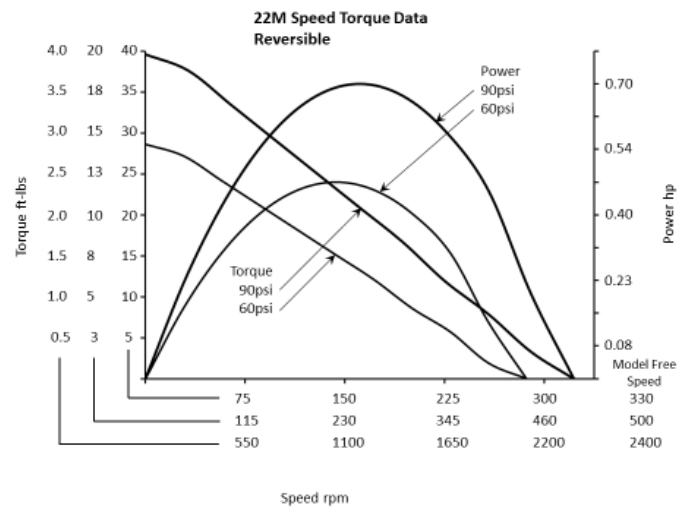
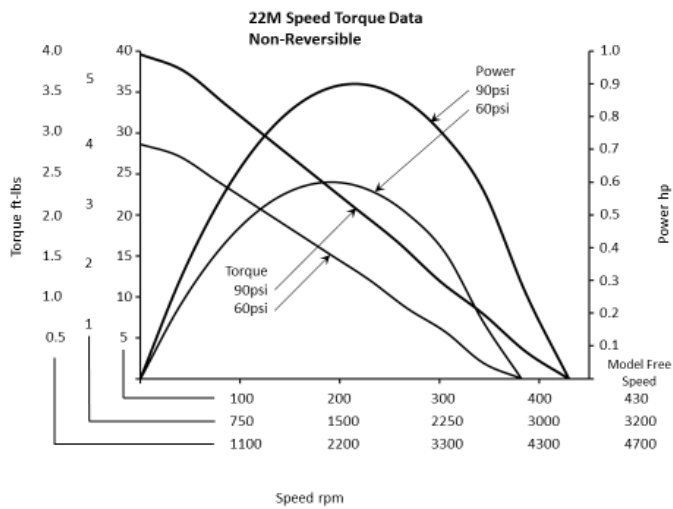
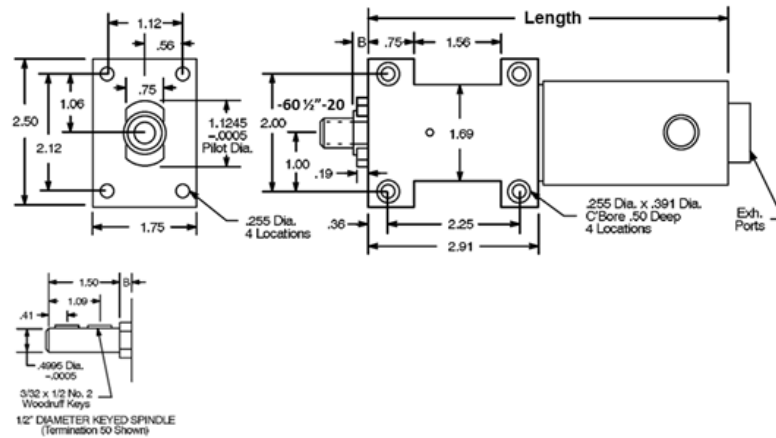
- Maximum Power 0.7 hp | 0.52 kw
- Torque Range 0.6 - 28.4 ft. lbs. | 0.81 - 38.48 Nm



Model	Mount	Spindle Type	RPM at Max HP	Free Speed	Torque Stall	Weight		Gear Ratio	Length	Horsepower	Air Consumption	Control
			r/min	r/min	Ft Lb Nm	Lb	kg		in mm	Hp kW	Scfm	
22M5070-50	Flange and Base Mounting	1/2 in Keyed Spindle	165	330	28.4 38.48	3.06	1.39	50.4-1	7.88 200	0.7	29	Reversible
22M5070-60	Flange and Base Mounting	1/2-20 Threaded Spindle	165	330	28.4 38.48	3.06	1.39	50.4-1	7.88 200	0.7	29	Reversible
22V5040-50	Flange and Base Mounting	1/2" in Keyed Spindle	215	430	5.8 7.86	4.0	1.81	38.7-1	7.88 200	0.9	29	LH Rotation
22M5071-50	Flange and Base Mounting	1/2" in Keyed Spindle	250	500	19.6 26.56	3.06	1.39	34.8-1	7.88 200	0.7	29	Reversible
22M5270-50	Flange and Base Mounting	1/2" in Keyed Spindle	1200	2400	4.0 5.42	2.38	1.08	7.1-1	6.16 156	0.7	29	Reversible
22M5340-50	Flange and Base Mounting	1/2" in Keyed Spindle	1600	3200	5.8 7.86	4.0	1.81	7.1-1	6.19 157	0.9	29	Non-Reversible
22M5440-50	Flange and Base Mounting	1/2" in Keyed Spindle	2350	4700	4.0 5.42	4.0	1.81	4.9-1	6.19 157	0.9	29	Non-Reversible

Air Inlet: 1/4" NPT-Side and rear
 Air consumption: 29 cfm(.82 m3/min)
 All tools performance rated @ 90psi(620 kPa) air pressure
 Standard Equipment:
 Hex socket screw provided for closure of unused inlet
 Flush fitting for lubrication of gears

22M Series Motor Dimensions



A2 Series - Air Motor - Axial Piston

Maximum Power 0.6 hp | 0.45 kw

- Maximum Power 0.6 hp | 0.45 kw
- Torque Range 2 - 107 ft. lbs. | 2.7 - 145 Nm
- Reversible
- Rear Exhaust
- Keyed Spindle



Model	Mount	Spindle Type	RPM at Max HP	Free Speed	Torque Stall	Weight		Gear Ratio	Length	Horsepower	Air Consumption	Control
			r/min	r/min	Ft Lb Nm	Lb	kg		in mm	Hp kW	Scfm	
A2R306M	Face Mounting	7/8 in Keyed Spindle	44	90	107 145	22	10	53.6-1	14.28 363	0.6	21.2	Reversible
A2R305M	Face Mounting	7/8 in Keyed Spindle	75	150	63.0 85	22	10	31.4-1	14.28 363	0.6	21.2	Reversible
A2R304M	Face Mounting	7/8 in Keyed Spindle	99	200	48.0 65	22	10	23.8-1	14.28 363	0.6	21.2	Reversible
A2R303M	Face Mounting	7/8 in Keyed Spindle	169	345	28.0 38	22	10	13.9-1	14.28 363	0.6	21.2	Reversible
A2R302M	Face Mounting	7/8 in Keyed Spindle	255	520	19.0 26	14	6.35	9.25-1	12.12 308	0.6	21.2	Reversible
A2R301M	Face Mounting	7/8 in Keyed Spindle	575	1170	8.0 11	14	6.35	4.1-1	12.12 308	0.6	21.2	Reversible

All models assume overhung load located at 1.75" (44.45mm) from face of motor.

These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed, 75% of free speed as shown on performance curve.

General:

Air Inlet: 3/8" NPTF

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

Optional Equipment:

Lubricating Oil – Part 533485 (1 gallon) Airube 10W/NR

Gear Grease - Part A123771 (16oz) Shell Gadus S2 V220 00



B4 Series - Air Motor - Axial Piston

Maximum Power 0.9 hp | 0.67 kw

- Maximum Power 0.9 hp | 0.67 kw
- Torque Range 4 - 232 ft. lbs. | 6.8 - 315 Nm
- Reversible
- Rear Exhaust
- Keyed Spindle



Model	Mount	Spindle Type	RPM at Max HP	Free Speed	Torque Stall	Weight		Gear Ratio	Length	Horsepower	Air Consumption	Control
			r/min	r/min	Ft Lb Nm	Lb	kg		in mm	Hp kW	Scfm	
B4R317M	Face Mounting	7/8 in Keyed Spindle	46	90	232.0 315	22.5	10.2	46.4-1	15.21 386	0.9	39.9	Reversible
B4R322M	Face Mounting	7/8 in Keyed Spindle	79	150	136.0 184	22.5	10.2	27.2-1	15.21 386	0.9	39.9	Reversible
B4R323M	Face Mounting	Discontinued	90	175	119.0 161	22.5	10.2	23.8-1	15.21 386	0.9	39.9	Reversible
B4R320M	Face Mounting	7/8 in Keyed Spindle	154	300	70.0 95	22.5	10.2	13.9-1	15.21 386	0.9	39.9	Reversible
B4R318M	Face Mounting	7/8 in Keyed Spindle	270	525	40.0 54	14.5	6.6	8-1	13.19 335	0.9	39.9	Reversible
B4R319M	Face Mounting	7/8 in Keyed Spindle	525	1020	21.0 28	14.5	6.6	4.1-1	13.19 335	0.9	39.9	Reversible
B4R321M	Face Mounting	Discontinued	2150	4200	5.0 6.8	14.5	6.6	1-1	13.19 335	0.9	39.9	Reversible

All models assume overhung load located at 1.75" (44.45mm) from face of motor.

These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed, 75% of free speed as shown on performance curve.

General:

Air Inlet: 3/8" NPTF

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

Optional Equipment:

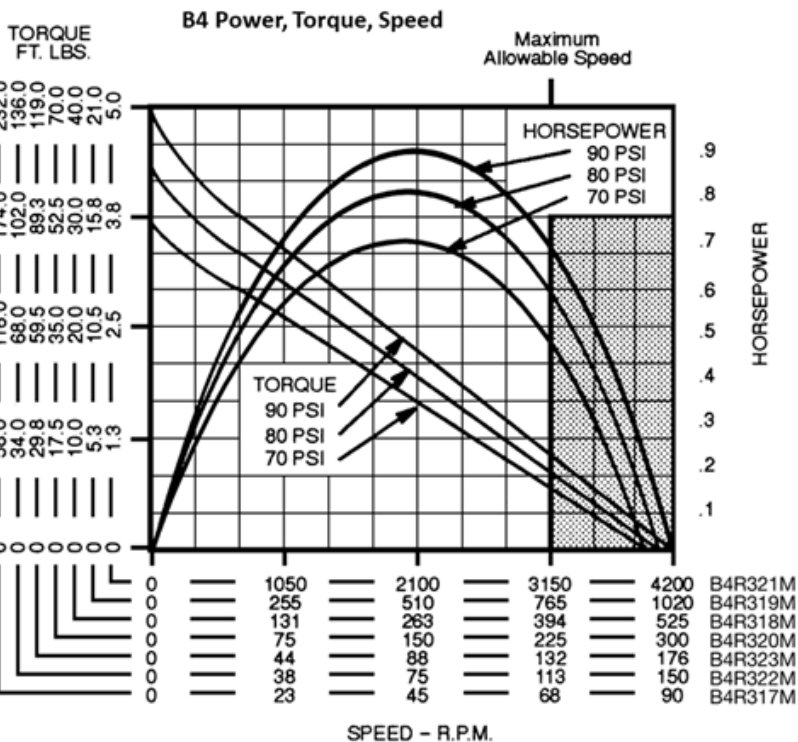
Exhaust Muffler - Part 813485

Lubricating Oil - Part 533485 (1 gallon) Airlube 10W/NR

Gear Grease - Part A123771 (16oz) Shell Gadus S2 V220 00

Gear Ratio

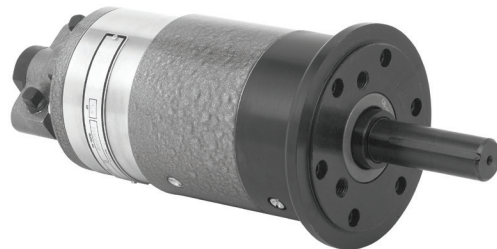
13.9-1
23.8-1
27.2-1
46.4-1



A6 Series - Air Motor - Axial Piston

Maximum Power 1.9 hp | 1.42 kw

- Maximum Power 1.9 hp | 1.42 kw
- Torque Range 11 - 370 ft. lbs. | 15 - 502 Nm
- Reversible
- Rear Exhaust
- Keyed Spindle



Model	Mount	Spindle Type	RPM at Max HP	Free Speed	Torque Stall	Weight		Gear Ratio	Length	Horsepower	Air Consumption	Control
			r/min	r/min	Ft Lb Nm	Lb	kg		in mm	Hp kW	Scfm	
A6R331M	Face Mounting	1 1/8 in Keyed Spindle	54	100	370.0 502	43	19.5	33.6-1	19.06 484	1.9	62	Reversible
A6R333M	Face Mounting	1 1/8 in Keyed Spindle	89	170	223.0 302	43	19.5	20.3-1	19.06 484	1.9	62	Reversible
A6R332M	Face Mounting	1 1/8 in Keyed Spindle	152	290	130.0 176	43	19.5	11.9-1	19.06 484	1.9	62	Reversible
A6R307M	Face Mounting	1 1/8 in Keyed Spindle	315	605	64.0 87	27	12.2	5.8-1	15.88 403	1.9	62	Reversible
A6R335M	Face Mounting	1 1/8 in Keyed Spindle	535	1030	37.0 50	27	12.2	3.4-1	15.88 403	1.9	62	Reversible
A6R308M	Face Mounting	Discontinued	1820	3500	1.0 15	27	12.2	1-1	15.88 403	1.9	62	Reversible

All models assume overhung load located at 2.25" (57.15mm) from face of motor.

These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed, 75% of free speed as shown on performance curve.

General:

Air Inlet: 3/8" NPTF

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

Optional Equipment:

Exhaust Muffler - Part 81348Lubricating Oil - Part 533485 (1 gallon) Airlube 10W/NR

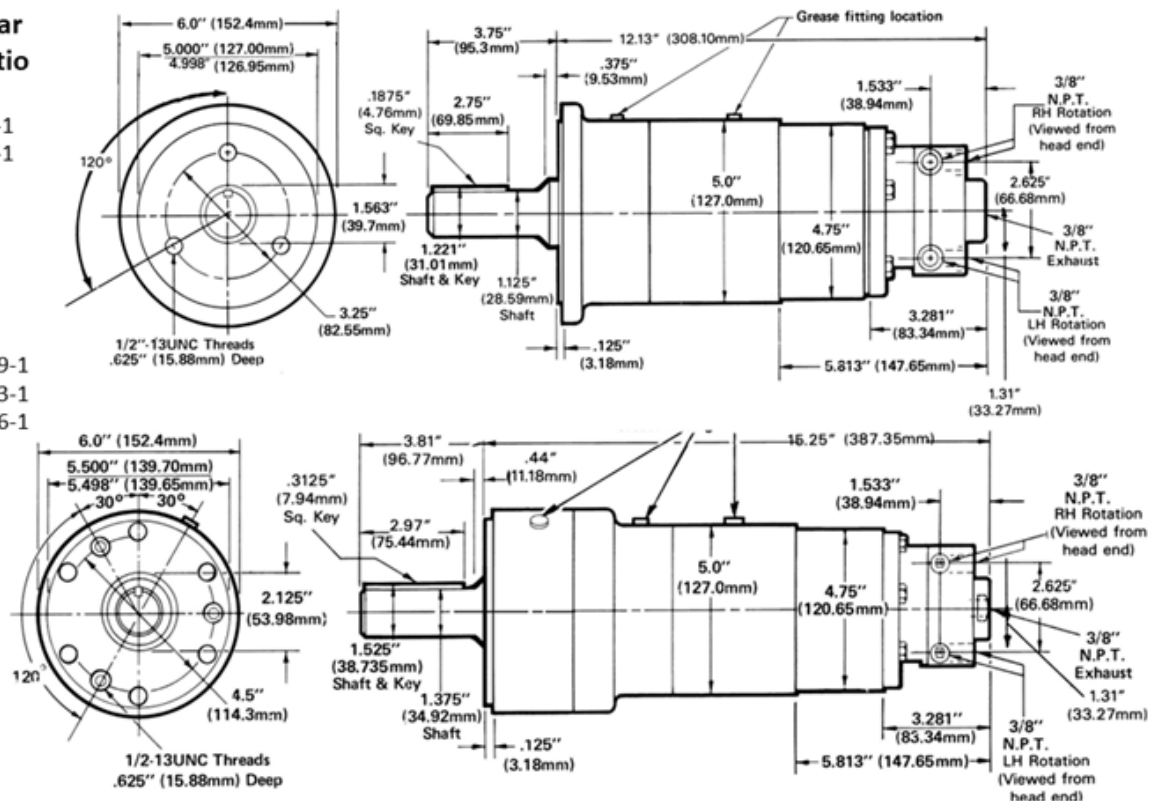
Gear Grease - Part A123771 (16oz) Shell Gadus S2 V220 0

A6 Series Motor Dimensions

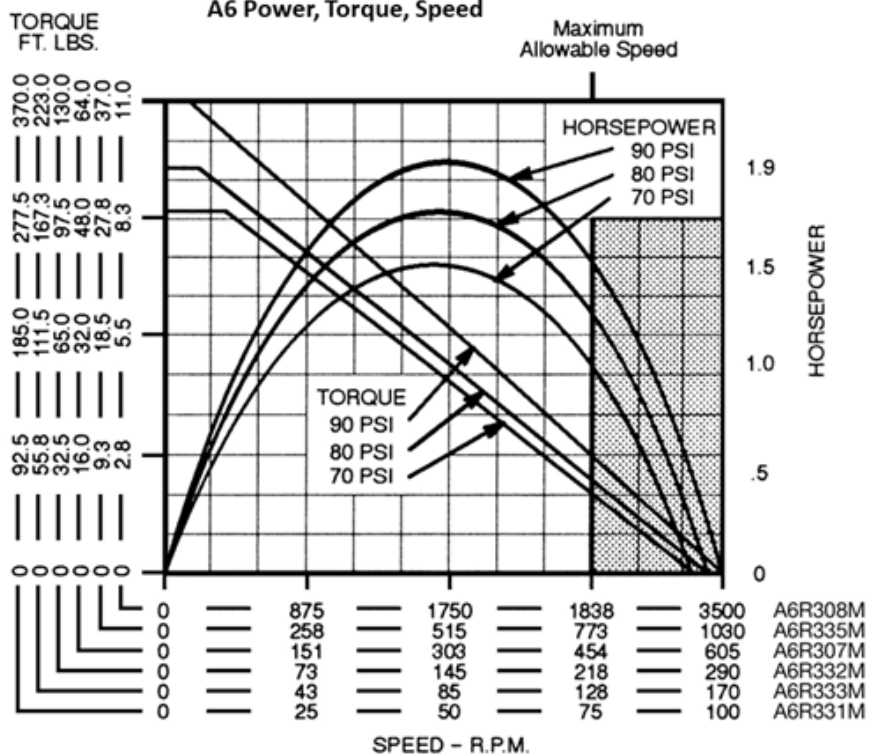
Gear Ratio

1-1
3.4-1
5.8-1

11.9-1
20.3-1
33.6-1



A6 Power, Torque, Speed



A8 Series - Air Motor - Axial Piston

Maximum Power 2.7 hp | 2.01 kw

- Maximum Power 2.7 hp | 2.01 kw
- Torque Range 19 - 638 ft. lbs. | 26 - 865 Nm
- Reversible
- Rear Exhaust
- Keyed Spindle



Model	Mount	Spindle Type	RPM at Max HP	Free Speed	Torque Stall	Weight		Gear Ratio	Length	Horsepower	Air Consumption	Control
			r/min	r/min	Ft Lb Nm	Lb	kg		in mm	Hp kW	Scfm	
A8R336M	Face Mounting	1 3/8 in Keyed Spindle	38	75	638.0 865	51	23.1	33.6-1	20.63 524	2.7	112	Reversible
A8R338M	Face Mounting	1 3/8 in Keyed Spindle	65	125	385.0 522	51	23.1	20.3-1	20.63 524	2.7	112	Reversible
A8R337M	Face Mounting	1 3/8 in Keyed Spindle	109	215	226.0 306	51	23.1	11.9-1	20.63 524	2.7	112	Reversible
A8R311M	Face Mounting	1 1/8 in Keyed Spindle	225	450	110.0 149	38	17.2	5.8-1	17.5 445	2.7	112	Reversible
A8R310M	Face Mounting	1 1/8 in Keyed Spindle	375	765	64.0 87	38	17.2	3.4-1	17.5 445	2.7	112	Reversible
A8R309M	Face Mounting	1 1/8 in Keyed Spindle	1300	2600	19.0 26	38	17.2	1-1	17.5 445	2.7	112	Reversible

All models assume overhung load located at 2.25" (57.15mm) from face of motor.

These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed, 75% of free speed as shown on performance curve.

General:

Air Inlet: 1/2" NPTF

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

Optional Equipment

Lubricating Oil - Part 533485 (1 gallon) Airlube 10W/NR

Gear Grease - Part A123771 (16oz) Shell Gadus S2 V220 00

Gear Ratio

Technical drawing of the 1000 Series 1/2" N.P.T. Exhaust Valve, showing front and side views with dimensions in inches and millimeters.

Front View Dimensions:

- Overall Diameter: 6.0" (152.4mm)
- Inner Circle Diameter: 5.000" (127.00mm)
- Inner Circle Diameter (Alternative): 4.998" (126.95mm)
- Keyway Depth: .1875" (4.76mm)
- Keyway Width: .38" (9.65mm)
- Shaft Diameter: 1.221" (31.013mm)
- Shaft Diameter (Alternative): 1.125" (28.59mm)
- Thread Specification: 1/2-13UNC Threads .625" (15.88mm) Deep
- Thread Diameter: 3.25" (82.55mm)
- Angle: 120°

Side View Dimensions:

- Overall Length: 13.75" (349.25mm)
- Grease fitting location
- Keyway Depth: .1875" (4.76mm)
- Keyway Width: .38" (9.65mm)
- Shaft Diameter: 1.221" (31.013mm)
- Shaft Diameter (Alternative): 1.125" (28.59mm)
- Thread Specification: 1/2-13UNC Threads .625" (15.88mm) Deep
- Thread Diameter: 3.25" (82.55mm)
- Angle: 120°

End View Dimensions (RH and LH Rotation):

- Overall Diameter: 6.0" Dia. (152.4mm)
- Inner Circle Diameter: 6.19" Dia. (157.23mm)
- Thread Specification: 1/2" N.P.T. Exhaust
- Thread Diameter: 1.66" (42.16mm)
- Thread Depth: 1.75" (44.45mm)
- Thread Diameter (Alternative): 1.5" (38.1mm)
- Thread Depth (Alternative): 1.5" (38.1mm)
- Thread Diameter (Alternative): 1.375" (34.925mm)
- Thread Depth (Alternative): 1.375" (34.925mm)
- Thread Diameter (Alternative): 1.25" (31.75mm)
- Thread Depth (Alternative): 1.25" (31.75mm)
- Thread Diameter (Alternative): 1.125" (28.59mm)
- Thread Depth (Alternative): 1.125" (28.59mm)
- Thread Diameter (Alternative): 1.0" (25.4mm)
- Thread Depth (Alternative): 1.0" (25.4mm)
- Thread Diameter (Alternative): .875" (22.225mm)
- Thread Depth (Alternative): .875" (22.225mm)
- Thread Diameter (Alternative): .75" (19.05mm)
- Thread Depth (Alternative): .75" (19.05mm)
- Thread Diameter (Alternative): .625" (15.88mm)
- Thread Depth (Alternative): .625" (15.88mm)
- Thread Diameter (Alternative): .5" (12.7mm)
- Thread Depth (Alternative): .5" (12.7mm)
- Thread Diameter (Alternative): .375" (9.525mm)
- Thread Depth (Alternative): .375" (9.525mm)
- Thread Diameter (Alternative): .25" (6.35mm)
- Thread Depth (Alternative): .25" (6.35mm)
- Thread Diameter (Alternative): .125" (3.175mm)
- Thread Depth (Alternative): .125" (3.175mm)

3.6-1

6.0" (152.4mm)

5.500" (139.70mm)

5.498" (139.65mm)

120°

30°

.3135" (7.96mm)

Sq. Key

.44" (11.18mm)

2.97" (75.44mm)

2.12" Dia. (53.85mm)

4.5" (114.3mm)

1.524" (38.71mm)

1.3755" (34.94mm)

16.81" (426.97mm)

Grease fitting location

6.0" (152.4mm)

6.19" (157.23mm)

1.66" (42.16mm)

1/2" N.P.T. RH Rotation (Viewed from head end)

3.5" (88.9mm)

1.75" (44.45mm)

1/2" N.P.T. Exhaust

1/2" N.P.T. LH Rotation (Viewed from head end)

3.97" (100.84mm)

1/2"-13 NC Thread 625' (15.88mm) Deep

A8 Power, Torque, Speed

TORQUE
FT. LBS.

Maximum Allowable Speed

HORSEPOWER

TORQUE
90 PSI
80 PSI
70 PSI

HORSEPOWER
90 PSI
80 PSI
70 PSI

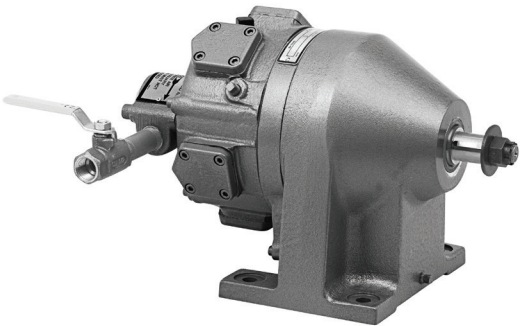
SPEED - R.P.M.

SPEED - R.P.M.	TORQUE 90 PSI (FT. LBS.)	TORQUE 80 PSI (FT. LBS.)	TORQUE 70 PSI (FT. LBS.)	HORSEPOWER 90 PSI	HORSEPOWER 80 PSI	HORSEPOWER 70 PSI
0	0	0	0	0	0	0
191	159.5	96.3	56.5	14.3	8.2	4.8
113	119.0	71.5	42.5	10.5	6.1	3.6
54	59.5	35.8	21.3	5.3	3.1	1.8
32	35.8	21.3	12.7	3.1	1.8	1.1
19	21.3	12.7	7.7	1.8	1.1	0.7
650	119.0	71.5	42.5	10.5	6.1	3.6
1300	59.5	35.8	21.3	5.3	3.1	1.8
1950	35.8	21.3	12.7	3.1	1.8	1.1
2600	21.3	12.7	7.7	1.8	1.1	0.7

MA2 Series - Air Motor - Radial Piston

Maximum Power 1.5 hp | 1.12 kw

- Maximum Power 1.5 hp | 1.12 kw
- Torque Range 8.6 - 262 ft. lbs. | 12 - 355 Nm
- Threaded Spindle

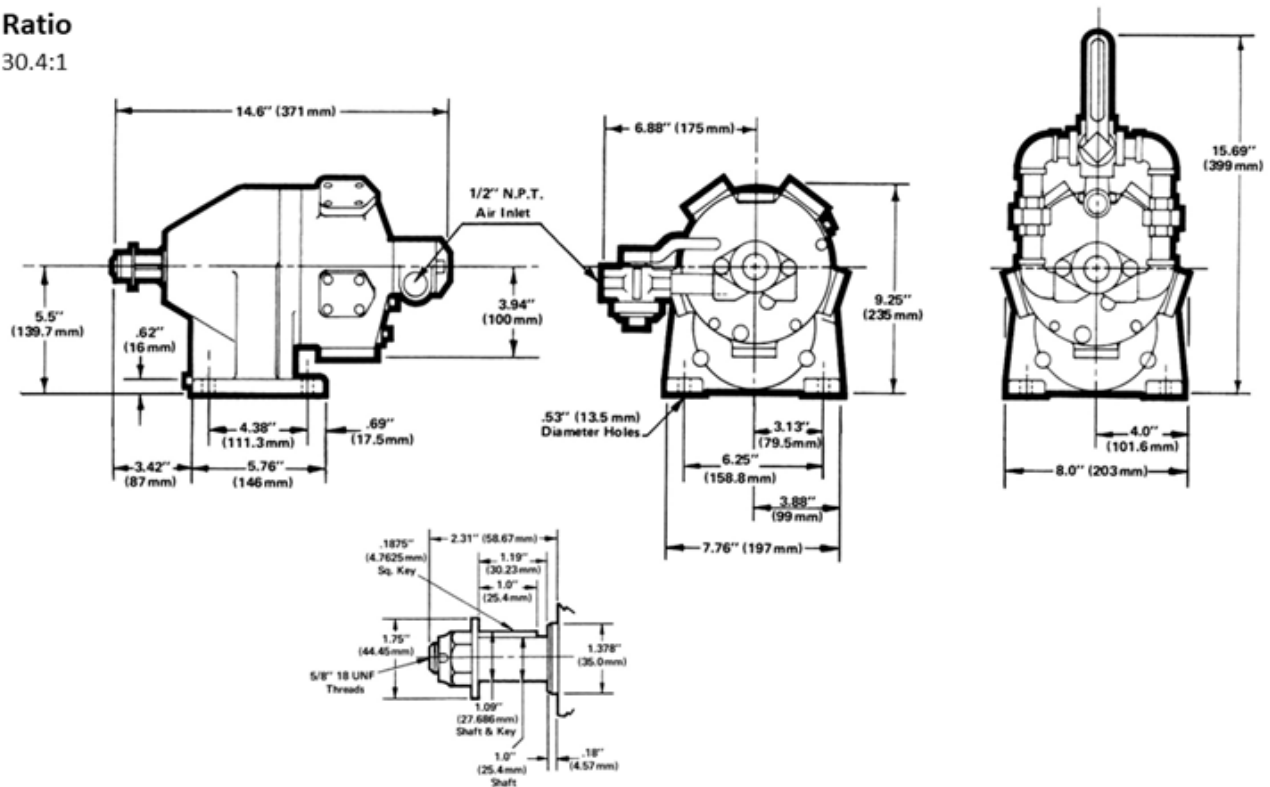


Model	Mount	Spindle Type	RPM at Max HP	Free Speed	Torque Stall	Weight		Gear Ratio	Length	Horsepower	Air Consumption	Control
			r/min	r/min	Ft Lb Nm	Lb	kg		in mm	Hp kW	Scfm	
MA2W403M	Foot Mounting	5/8 in Threaded Spindle	60	120	262.0 355	43	19.5	30.4-1	14.6 371	1.5	58	No Valving

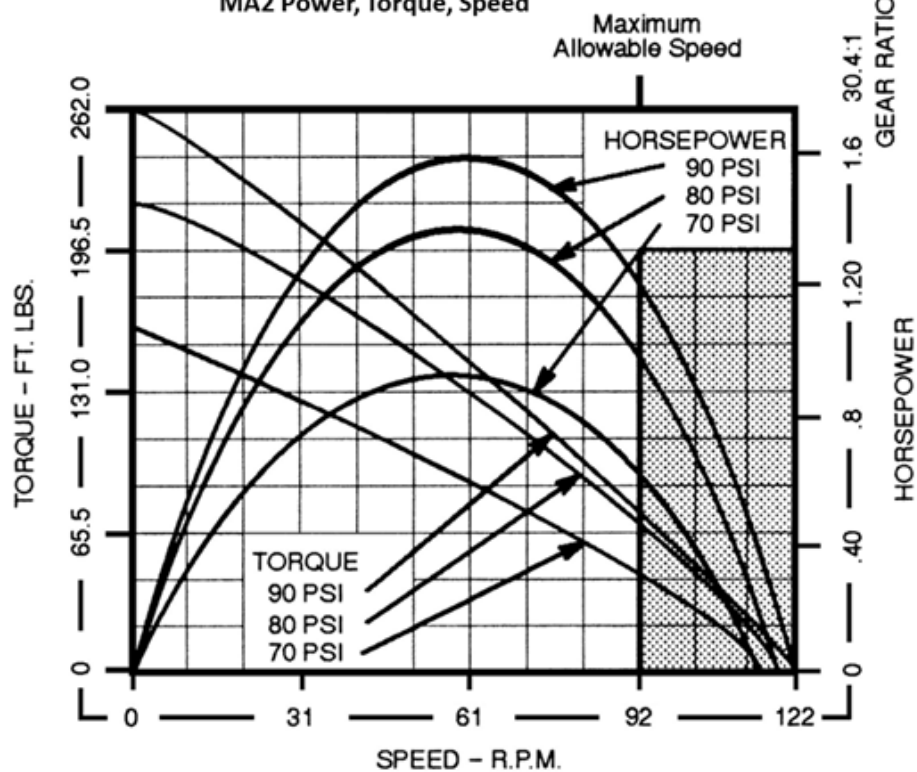
All models assume overhung load located at 0.625" (15.88mm) from face of motor.
These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed shown on performance curve.
General:
Air Inlet: 1/2" NPTF
All tools performance rated @ 90psi (620 kPa) air pressure.
Note::
Fill the motor to the proper level before operating. Use engine oil API Service Classified "SC" in the following weights:
Above 32° F: SAE 30W
Below 32° F: SAE 10W

MA2 Series Motor Dimensions

Gear
Ratio
30.4:1



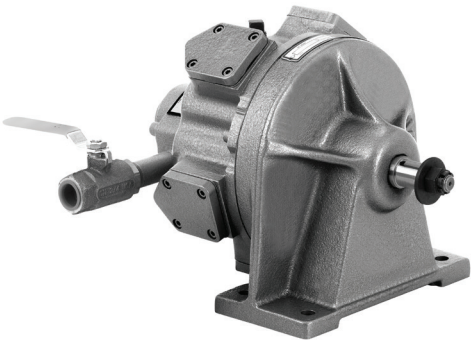
MA2 Power, Torque, Speed



MA3 Series -Air Motor - Radial Piston

Maximum Power 3.0 hp | 2.24 kw

- Maximum Power 3.0 hp | 2.24 kw
- Torque Range 24 - 588 ft. lbs. | 33 - 797 Nm
- Threaded Spindle



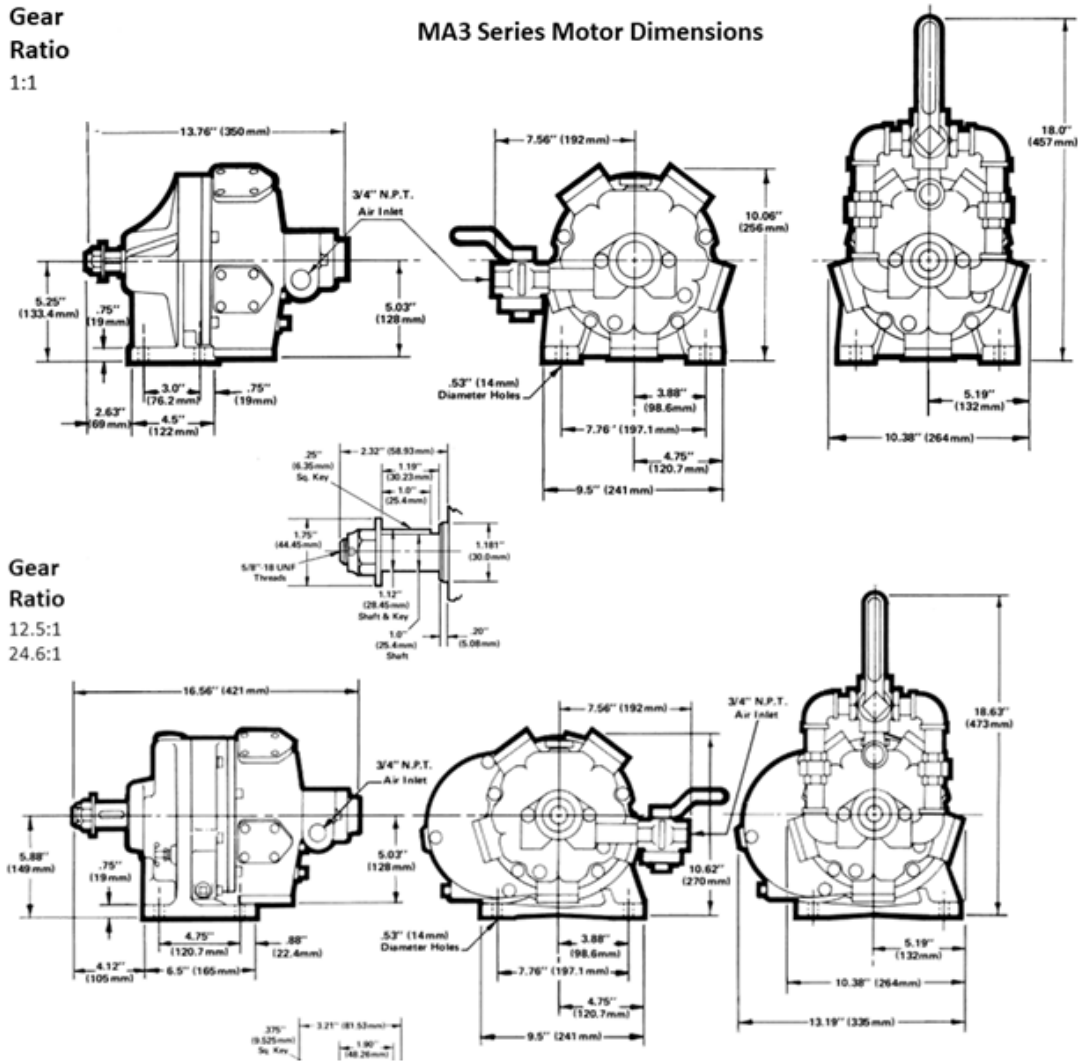
Model	Mount	Spindle Type	RPM at Max HP	Free Speed	Torque Stall	Weight		Gear Ratio	Length	Horsepower	Air Consumption	Control
			r/min	r/min	Ft Lb Nm	Lb	kg		in mm	Hp kW	Scfm	
MA3W407M	Foot Mounting	5/8 in Threaded Spindle	48	100	588.0 797	67	30.1	24.6-1	16.56 421	3.0	95	No Valving

MA3W406M	Foot Mounting	5/8 in Threaded Spindle	1190	2600	24.0 33	51	23.1	1-1	13.76 350	3.0	80	No Valving
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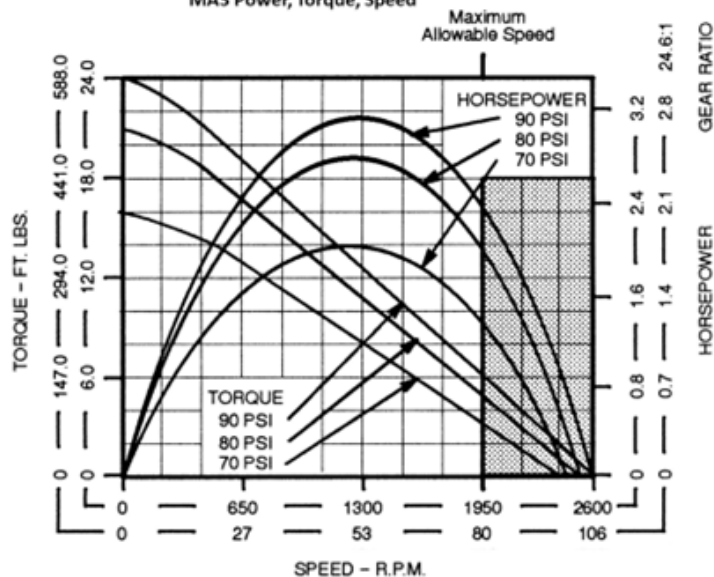
Non-geared models assume overhung load located at 0.625" (15.88mm) from face of motor.
Geared models assume overhung load located at 1" (25.40mm) from face of motor.
These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed, 65% of free speed as shown on performance curve.
General:
Air Inlet: 3/4" NPTF
All tools performance rated @ 90psi (620 kPa) air pressure.
Note:
Fill the motor to the proper level before operating. Use engine oil API Service Classified "SC" in the following weights:
Above 32° F: SAE 30W
Below 32° F: SAE 10W

Gear
Ratio
1:1

MA3 Series Motor Dimensions



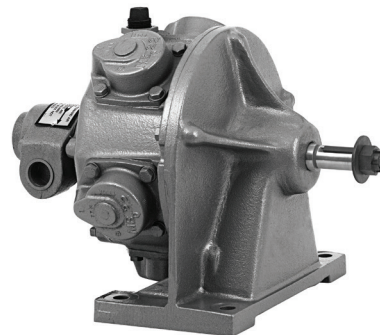
MA3 Power, Torque, Speed



MB Series - Air Motor - Radial Piston

Maximum Power 5.5 hp | 4.10 kw

- Maximum Power 5.5 hp | 4.10 kw
- Torque Range 34 - 700 ft. lbs. | 46 - 949 Nm
- Threaded Spindle



Model	Mount	Spindle Type	RPM at Max HP	Free Speed	Torque Stall	Weight		Gear Ratio	Length	Horsepower	Air Consumption	Control
			r/min	r/min	Ft Lb Nm	Lb	kg		in mm	Hp kW	Scfm	
MBR377M	Foot Mounting	1 1/2in keyed	74	150	700.0 949	148	67.1	20.4-1	18.12 460	5.5	154	Reversible Valving
MBW411M	Foot Mounting	1 1/2in keyed	74	150	700.0 949	148	67.1	20.4-1	18.12 460	5.5	154	No Valving
MBW412M	Foot Mounting	1 1/2in keyed	133	270	388.0 526	148	67.1	11.3-1	18.12 460	5.5	148	No Valving
MBW413M	Foot Mounting	1 1/2in keyed	268	540	192.0 260	148	67.1	5.6-1	18.12 460	5.5	140	No Valving
MBS380M	Foot Mounting	1 1/2in keyed	270	540	192.0 260	145	65.8	5.6-1	18.12 460	5.5	144	Single Direction Valving

All models assume overhung load located at 1" (25.40mm) from face of motor.

These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed, 65% of free speed as shown on performance curve.

General:

Air Inlet: 1" NPTF

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

Note: Fill the motor to the proper level before operating. Use engine oil API Service Classified "SC" in the following weights:

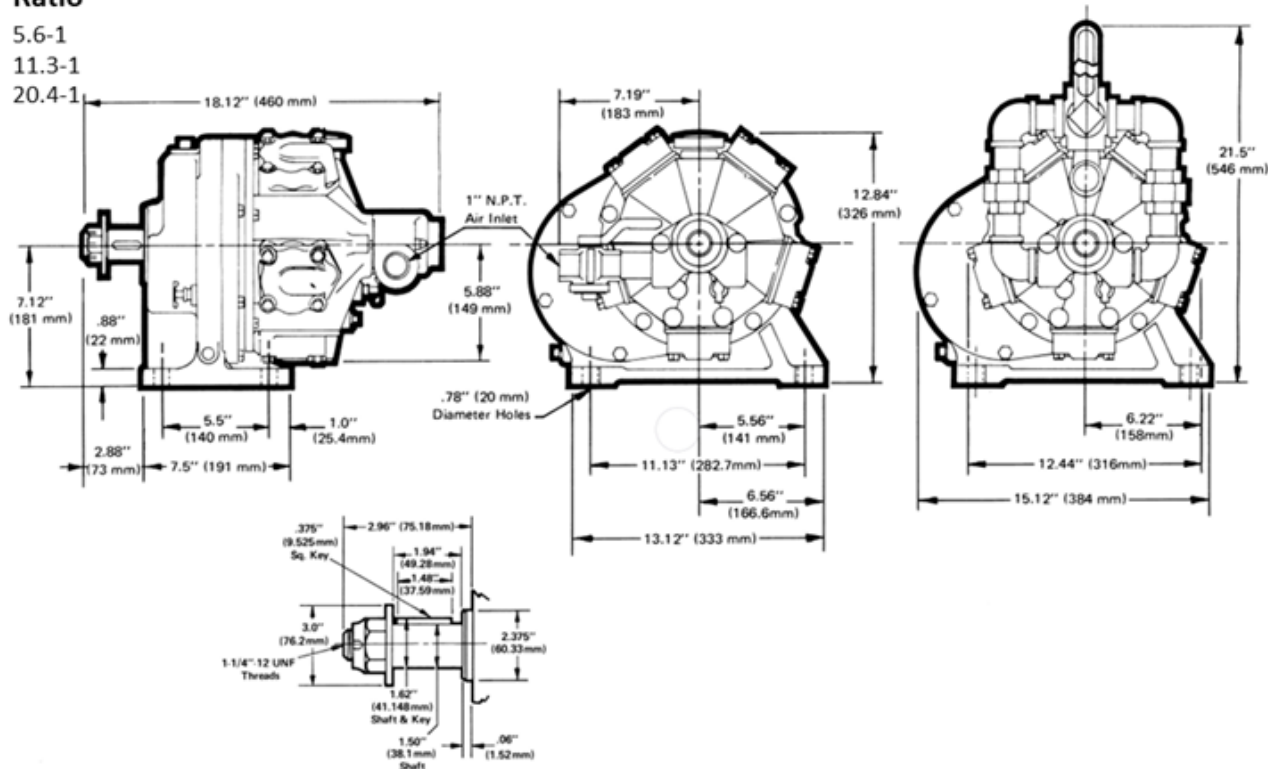
Above 32° F: SAE 30W

Below 32° F: SAE 10W

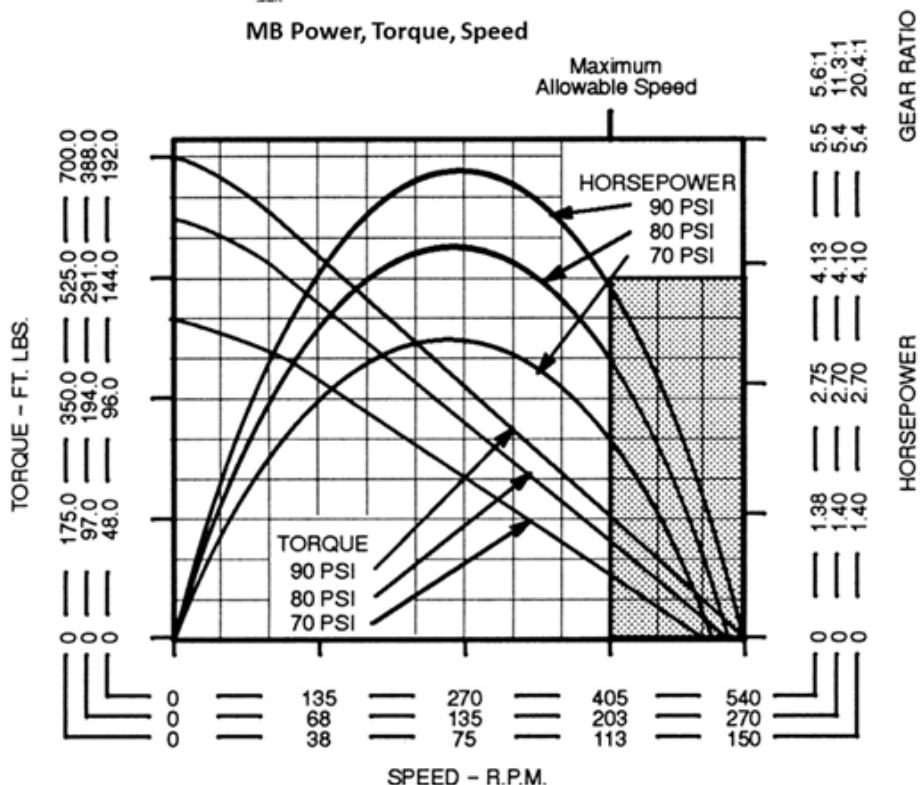
MB Series Motor Dimensions

Gear Ratio

5.6:1
11.3:1
20.4:1



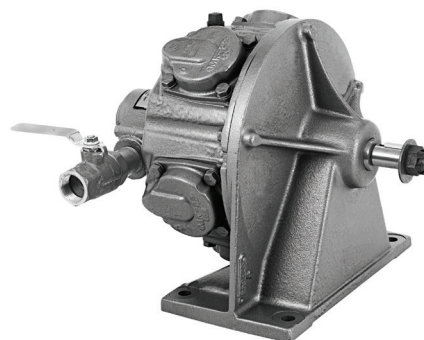
MB Power, Torque, Speed



MK Series - Air Motor - Radial Piston

Maximum Power 11 hp | 8.20 kw

- Maximum Power 11 hp | 8.20 kw
- Torque Range 117 - 1654 ft. lbs. | 159 - 2243 Nm
- Threaded Spindle



Model	Mount	Spindle Type	RPM at Max HP	Free Speed	Torque Stall	Weight		Gear Ratio	Length	Horsepower	Air Consumption	Control
			r/min	r/min	Ft Lb Nm	Lb	kg		in mm	Hp kW	Scfm	
MKW419M	Foot Mounting	1 1/4 in Threaded Spindle	67	135	1654.0 2243	230	104.3	14.2-1	20.88 530	11	288	No Valving
MKS392M	Foot Mounting	Discontinued	69	135	1654.0 2243	225	102.1	14.2-1	20.88 530	11	293	Single Direction Valving
MKR395M	Foot Mounting	1 1/4 in Threaded Spindle	183	375	606.0 822	230	104.3	5.2-1	20.88 530	11	299	Reversible Valving
MKW420M	Foot Mounting	1 1/4 in Threaded Spindle	183	375	606.0 822	230	104.3	5.2-1	20.88 530	11	299	No Valving
MKW418M	Foot Mounting	1 in Threaded Spindle	975	1900	117.0 159	104	91.6	1-1	20.42 519	11	311	No Valving

All models assume overhung load located at 1" (25.40mm) from face of motor.

These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed, 65% of free speed as shown on performance curve.

General:

Air Inlet: 1-1/4" NPTF

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

Note:

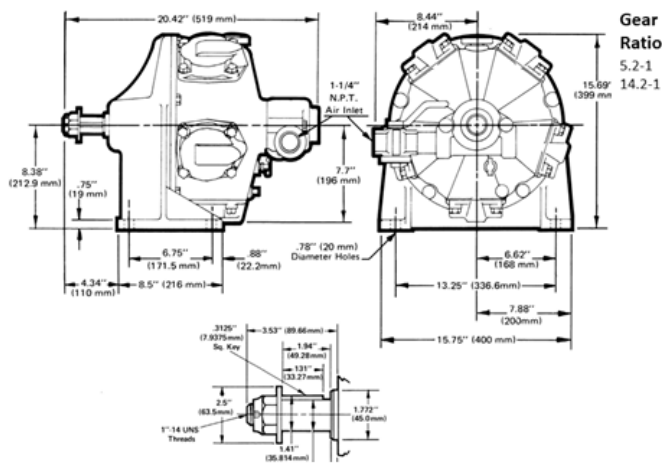
Fill the motor to the proper level before operating. Use engine oil API Service Classified "SC" in the following weights:

Above 32° F: SAE 30W

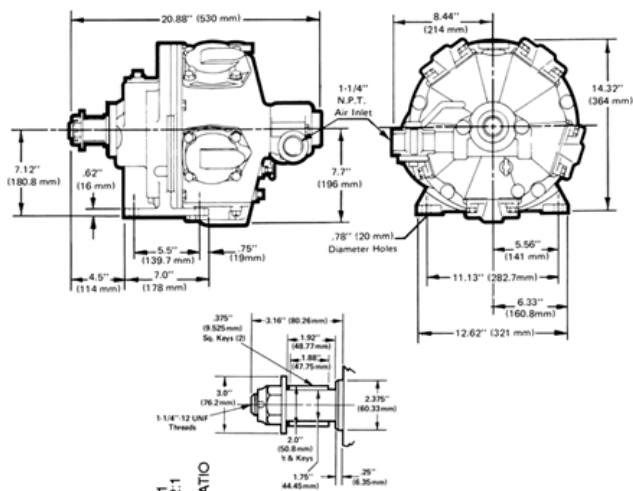
Below 32° F: SAE 10W

MK Series Motor Dimensions

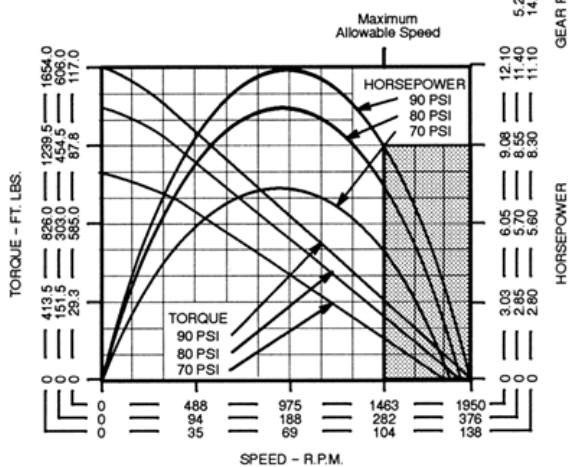
Gear Ratio
1:1



MK Series Motor Dimensions



MK Power, Torque, Speed



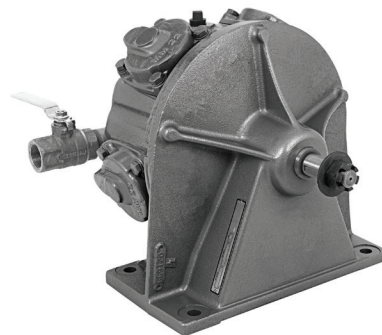
GEAR RATIO
5.2:1
14.2:1

HORSEPOWER

MM Series - Air Motor - Radial Piston

Maximum Power 15 hp | 11.19 kw

- Maximum Power 15 hp | 11.19 kw
- Torque Range 138 - 1952 ft. lbs. | 187 - 2647 Nm
- Threaded Spindle



Model	Mount	Spindle Type	RPM at Max HP	Free Speed	Torque Stall	Weight		Gear Ratio	Length	Horsepower	Air Consumption	Control
			r/min	r/min	Ft Lb Nm	Lb	kg		in mm	Hp kW	Scfm	
MMW422M	Foot Mounting	1 1/4 in Threaded Spindle	71	150	1952.0 2647	231	104.8	14.2-1	20.88 530	15	345	No Valving
MMW423M	Foot Mounting	1 1/4 in Threaded Spindle	194	400	715.0 970	231	104.8	5.2-1	20.88 530	15	332	No Valving
MMS400M	Foot Mounting	1 1/4 in Threaded Spindle	206	400	715.0 970	226	102.5	5.2-1	20.88 530	15	336	Single Direction Valving
MMW421M	Foot Mounting	1 1/4 in Threaded Spindle	1010	2100	138.0 187	214	97.1	1-1	20.42 519	15	352	No Valving
MMS396M	Foot Mounting	1 1/4 in Threaded Spindle	1070	2100	138.0 187	210	95.3	1-1	20.42 519	15	348	Single Direction Valving

All models assume overhung load located at 1" (25.40mm) from face of motor.

These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed, 65% of free speed as shown on performance curve.

General:

Air Inlet: 1-1/4" NPTF

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

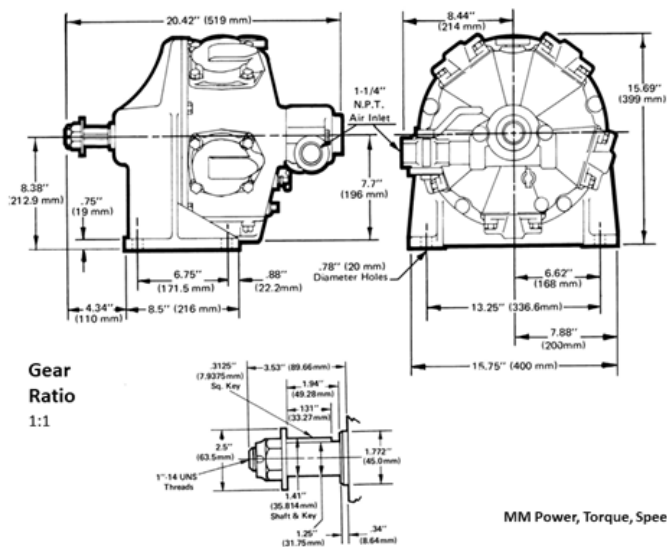
Note:

Fill the motor to the proper level before operating. Use engine oil API Service Classified "SC" in the following weights:

Above 32° F: SAE 30W

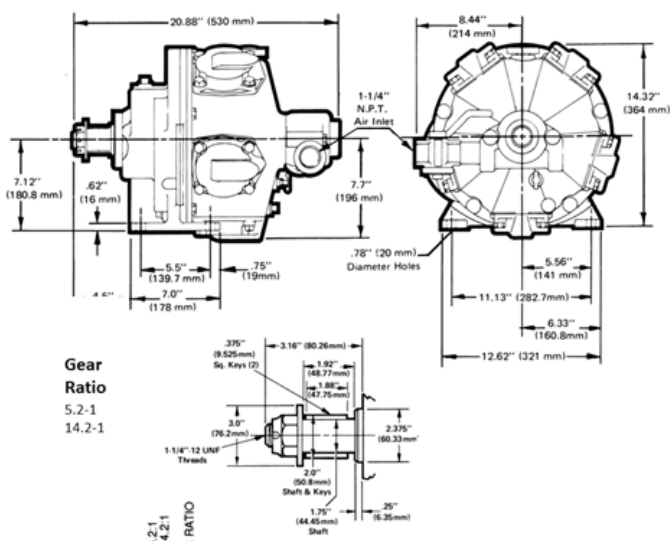
Below 32° F: SAE 10W

MM Series Motor Dimensions



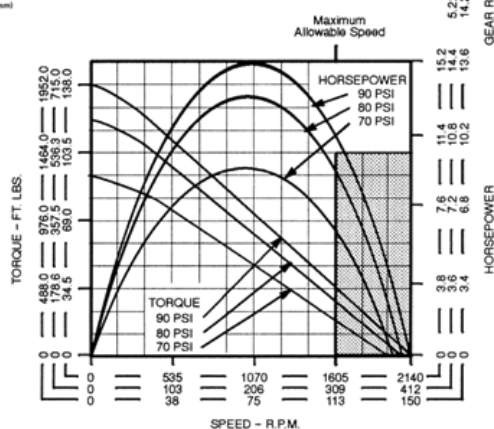
Gear Ratio
1:1

MM Series Motor Dimensions



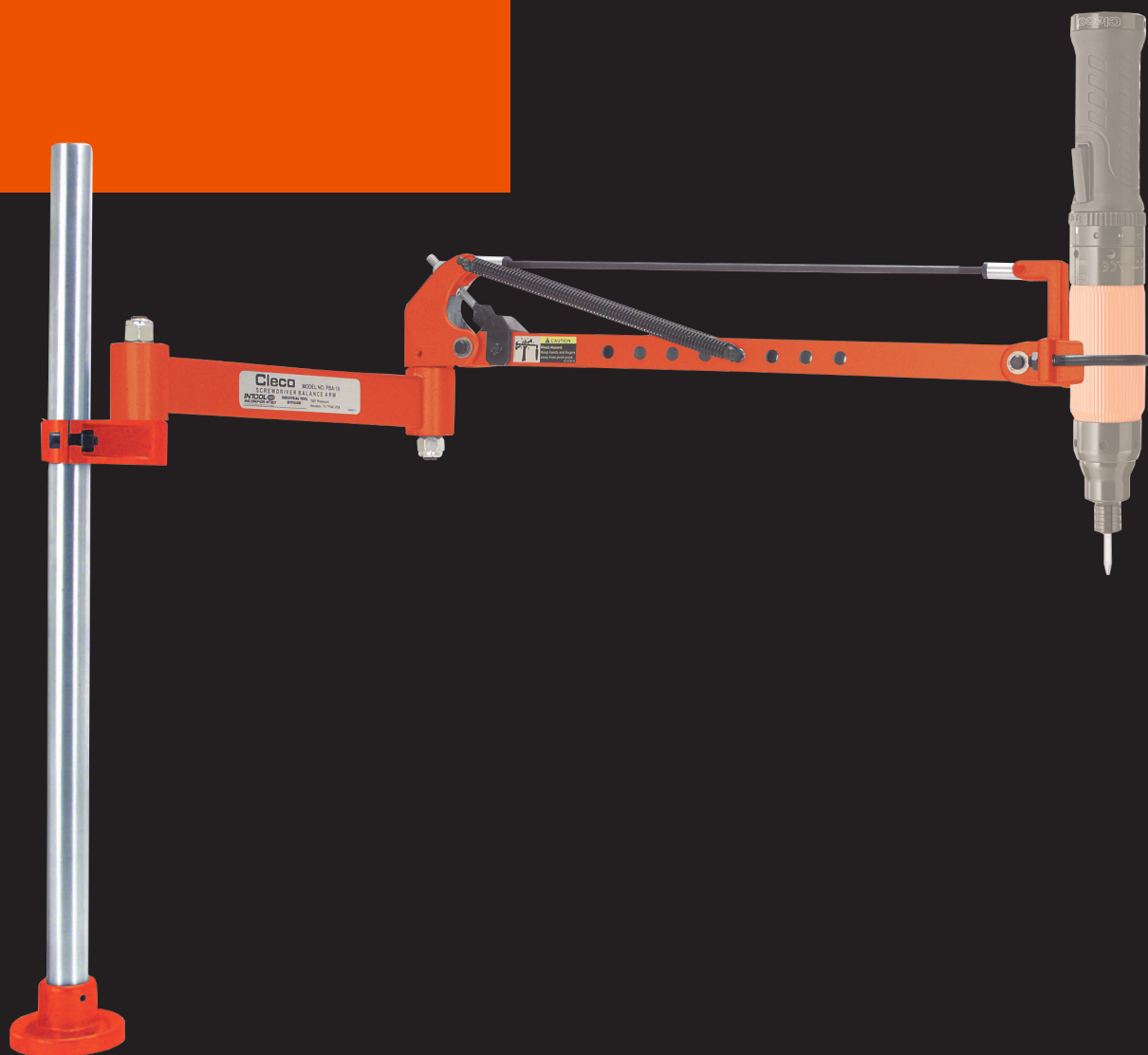
Gear Ratio
5.2-1
14.2-1

MM Power, Torque, Speed



Cleco

ACCESSORIES

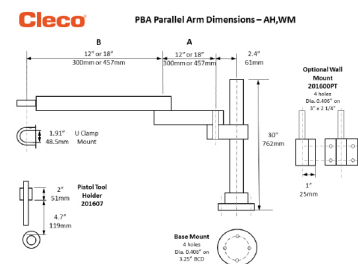


Balance Arms - Spring - Parallel

- AH - adjustable height post mounting
- Includes Standard U Bolt Tool Clamp Max Dia 1.91" Dia - 201675
- Post Height 30" / 760mm
- Torque Capacity 10 ftlbs / 13.5Nm Weight Capacity 5lb / 2.25kg
- 4" Dia Base Mount with 4 holes PCD 3.25" / 0.406" Dia.
- Optional Wall Mount Kit 201600PT

Model	Description	Dimension A	Dimension B	Dimension D
		in	in	in
520009	Adjustable Height, 24" Reach, 1.25" Max Dia U Bolt Mount	12	12	30
520012	Adjustable Height, 30" Reach, 1.25" Max Dia U Bolt Mount	12	18	30

Tool weight capacity: 5 lbs. (2.3 kg)
 Torque capacity: 10 ft. lbs. (13.5 Nm)
 Standard Equipment:
 Operating Instructions and Service Manual.

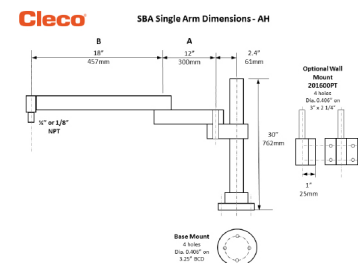


Balance Arms - Spring - Single

- Ball bearing construction
- Supports tools weighing up to 5 lbs.
- Adjustable height post mounting. Optional Kit for Wall Mounting 201600PT
- Includes Nipples for 1/4" (204032PT) and 1/8" NPT (204137PT) tool mount

Model	Description	Dimension A	Dimension B	Dimension D
		in	in	in
520003	Adjustable Height, 24" Reach Manifold Mount 1/4" / 1/8" NPT	12	12	30
520006	Adjustable Height, 30" Reach Manifold Mount 1/4" / 1/8" NPT	12	18	30

Tool weight capacity: 5 lbs. (2.3 kg)
 Torque capacity: 10 ft. lbs. (13.5 Nm)
 Standard Equipment:
 Operating Instructions and Service Manual.



BL-1 and -2 Series Balancers 0.5 - 1.8 kg / 1 - 4lbs - Cleco

- Impact-resistant plastic housing
- Resilient, durable spring
- Mounting eye can be rotated 360°
- Mounting point for safety chain
- Adjustable cable stop
- Adjustment of the spring tension using external rotary knob
- Nylon rope length 1.6m / 5.2 ft



Model	Description	Cable Length	Weight	
			Lb	kg
BL-1B	0.5-0.9kg / 1-2lb	1.6m / 5.2ft	0.94	0.43
BL-2B	0.5-1.8kg / 1-4lbs	1.6m / 5.2ft	0.94	0.43

BL Series Balancers 0.5 - 10 kg / 1 - 22lbs - Cleco

- Painted steel housing
- Spring break protection
- Adjustable cable stop permits adjustment of tool to the required height
- Carabiner hook can be rotated 360° except BL-3B
- Cable length 2.4m/7.9ft Cable diameter 2.5mm / 0.1"



Model	Description	Cable Length	Weight	
			Lb	kg
BL-10C	7.3-10kg / 16-22 lb	2.4m / 7.9ft	9.26	4.2
BL-3B	0.5-2.3kg / 1-5lbs	2.4m / 7.9ft	3.97	1.8
BL-5C	1.8-5kg / 4-11 lb	2.4m / 7.9ft	8.38	3.8
BL-7C	3.6-6.8kg / 8-15 lb	2.4m / 7.9ft	8.38	3.8

BM Series - Balancers 2.3 - 30 kg / 5 - 66 lb- Cleco

- Aluminum housing
- Spring break protection
- Adjustable cable stop permits adjustment of tool to the required height
- Manual drum locking
- Coated cable drum against wear
- Mounting bar can be rotated 360°
- Cable length 1.8m / 5.9 ft, Cable diameter 3.0 mm / 0.12"
- Option: 939536 safety chain



Model	Description	Cable Length	Weight	
			Lb	kg
BM-14B	9 - 14kg / 20-31 lb	1.8m / 5.9ft	16.32	7.4
BM-18B	13 - 18kg / 29-40 lb	1.8m / 5.9ft	16.32	7.4
BM-30B	22 -30kg / 48-66 lb	1.8m / 5.9ft	16.32	7.4
BM-5B	2.3 - 5kg / 5-11 lb	1.8m / 5.9ft	16.32	7.4
BM-9B	5 - 9kg / 11-20 lb	1.8m / 5.9ft	16.32	7.4

BH Series - Balancers 31 - 49 kg Cleco

- Aluminum housing
- Spring break protection
- Adjustable cable stop permits adjustment of tool to the required height
- Manual drum locking
- Coated cable drum against wear
- Mounting bar can be rotated 360°
- Cable diameter 5.0 mm
- Option: 939536 safety chain



Model	Description	Cable Length	Weight	
			Lb	kg
BH-39B	31 - 39kg / 68 - 86lbs	2.1	37.49	17

Torque Analyzer

Up to 68Nm/50 ftlbs use with Electric, Pneumatic Clutch Stall and Pulse and Manual Electronic and Click Torque Wrenches

- Choice of measurement modes including track, peak, pulse, and click
- Memory for 999 date- and time-stamped readings for complete traceability
- 3-color LED indication of torque measurement status
- Easy-to-operate for fast and accurate torque readings and assembly tool auditing
- Automatically switches to highest voltage power source (main/USB/battery)
- Clear, easy-to-read white OLED screen for basic torque data readings and alerts
- Analyzer supplied with either 4Nm or 30Nm rundown joint
- Range can be expanded with optional 68NM transducer and rundown kit - suitable for 4Nm and 30Nm analyzer



Model	Description	Torque Range Max	
		Ft Lb	Nm
CJK38	Dynamic Joint Kit for use wiith 68Nm Stationary Transducer	50	68
CST6838	68 Nm Stationary Transducer	50	68
CTA0414	0.4-4 Nm Torque Analyzer	3	4
CTA3038	3.0-30Nm Torque Analyzer	22	30

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
- Min Air Flow 5CFM/145 l/min Max Air Flow 20CFM/ 570 l/min



Model	Max Pressure	Max Flow	Min Flow	Weight
	lb/in ² bar	cfm l/min	cfm l/min	Lb
240461PT	100 lb/in ² 6.9 bar	20 570	5 145	0.176

Airline Filter & Lubricator

Mounts in Hose Line.

- One ounce reservoir good for average 8-hour shift.



Model	Description	Max Pressure	Air Inlet Size
		lb/in² bar	in
45-0201	1/4" NPTF Hose Line Lubricator	100 lb/in² 6.9 bar	1/4 in

Flexible Air Hose

- Buna N Material with Flexible Nylon Braid



Model	Description	Fittings (NPT)	Tool Series	Diameter	Length	Length
				in	ft	m
45-1307	3/16" Hose I.D; 1/4"M X 1/8"M Fittings; 7 ft	1/8M - 1/4M		3/16	7	2.13
45-1408	1/4" Hose I.D; 1/4"M X 1/4"M Fittings; 8 ft	1/4M - 1/4M	12-10, 12-11, 12-12, 12-13, 14CF, 15LF, 15-14	1/4	8	2.44
45-1409	1/4" Hose I.D; 1/4"M X 1/8"M Fittings; 8 ft	1/8M - 1/4M	10-10, 10-11, 10-12	1/4	8	2.44
45-1508	5/16" Hose I.D; 1/4"M X 1/4"M Fittings 8 ft	1/4M - 1/4M	10-20, 10-21, 10-22, 10-25, 10-26, 10-27, 12-20, 12-21, 12-22, 12-25, 12-26, 12-27, 12-28, 14CS, 14CN, 15LS, 15LN	5/16	8	2.44

General: 3/16" & 1/4" hoses have braided covers, all others have neoprene covers.

Lubricants



Part Number	Size	Description	MSDS Number
45-0918	1 qt. plastic	Air Tool Oil - Qt.	CPT-155
45-0980	2 oz. tube	Cleco Dotco Angle Head Grease Moly-XL 250 for Grinders/Sanders	CPT-148
45-0983	2 oz. tube	Cleco Dotco Planetary Gear Grease for Grinders & Sanders	CPT-147
513156	18 oz. can	Magnalube-G Assembly Tool Teflon Grease	CPT-145
533485	1 gal. metal	Axial Piston Motor Air Tool Oil 1 gal. can	CPT-153
539317	1 ct quart plastic bottle	Univis Pulse Tool Hydraulic Oil	CPT-157
540394	2.8oz Tube	Molykote G-N Metal Assembly Paste for Angle & Planetary	CPT-146
541445	500g Can	Rheolube 363AX-1 500g can	CPT-286
A123771	1 gal. metal	Shell Gadus S2 V220 00 16 oz can	

Under normal conditions of use, lubrication products sold separately for or used within these tools should not cause an exposure hazard.

Refer to the Material Safety Data Sheet M.S.D.S. for Safety and Disposal information.

M.S.D.S. sheets are available upon request.

Cleco

DRILLS



Cleco | Tame the Line

SHOWN: MP14 SERIES

DRILLS

ENGINEERED FOR YOUR APPLICATIONS.

Cleco offers two levels of hand drills depending on your application needs. Cleco MP Series Drills are Industrial grade medium duty drills suitable for a wide range of production and MRO applications.

Cleco® Dotco™ drills are Industrial high duty grade and are used daily in applications ranging from appliances to aerospace manufacturing.

Offered in a variety of configurations, including pistol grip, inline, and right angle, Cleco Dotco air drills are designed for the high-volume, high-repetition, high-precision demands of today's assembly lines.



PARTS INTERCHANGEABILITY.

Maintenance of tools can be time consuming and expensive. That is why our products have been designed with high parts interchangeability. With fewer parts required to repair our tools, less inventory of parts is required and tools are easier to repair.

PRECISION PARTS

It's simple, precision parts let operators manufacture precision products. Whether it is a spindle, a chuck, a motor or an angle head, our parts are manufactured from the finest materials available and are machined to the highest tolerances.

DEPENDABLE ERGONOMIC DRILLS

Cleco Dotco drills have long been the industry workhorse for the high-volume, high-repetition, high-precision demands of today's assembly line. Cleco® Dotco™ drills are the ergonomic solution to deliver comfort and productivity, while assuring decreased operator fatigue, potential for injury and downtime on the line.



14 SERIES PISTOL GRIP DRILLS

Design features double ball bearings for the spindle, pre-loaded for longer bearing life and more accurate spindle control. Vibration and runout are reduced.

Gears are machined from alloy steel and heat-treated, with fixed cages to control centers for smooth operation.

Time-proven motor and gear design is well-balanced to reduce vibration and extend tool life.

Each tool is individually checked, aligned and adjusted on our assembly line for minimum chuck runout. Vibration is minimized.

Ergonomically critical finger and thumb guides fit the hand and aid in control.

The trigger is practically forceless requiring only 4 ounces of pressure to engage.

Housing is made of durable lightweight industrial grade aluminum.

Finger lip under the trigger keeps other fingers from interfering with the trigger action.

Handles are shaped to fit the human hand. They are flat where they need to be flat and round where they need to be round ensuring less slippage.

Full feathering is accomplished with our pressurized tip-valve design for speed control while drilling.

Rubber grip acts as a thermal protector and isolates vibration for improved operator comfort.

Minimal noise levels enhance operator comfort.

Pistol Grip Drills

Inline Drills

Right Angle Drills



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

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	Free Speed (rpm)	Exhaust	Weight	Weight (kg)	Length	Length (mm)
				Lb		in	
15LF281-62	1/4"-28 i	5300 r/min	Rear	1.6	0.73 kg	10.7	272 mm
15LF282-62	1/4"-28 i	4000 r/min	Rear	1.6	0.73 kg	10.7	272 mm
15LF283-62	1/4"-28 i	3300 r/min	Rear	1.6	0.73 kg	10.7	272 mm
15LF284-62	1/4"-28 i	2400 r/min	Rear	1.8	0.82 kg	11.1	282 mm
15LF285-62	1/4"-28 i	1000 r/min	Rear	1.9	0.86 kg	11.8	300 mm
15LF286-62	1/4"-28 i	750 r/min	Rear	1.9	0.86 kg	11.8	300 mm
15LF287-62	1/4"-28 i	600 r/min	Rear	1.9	0.86 kg	11.8	300 mm

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

Air inlet size: 1/4in

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

15LF Series Right Angle Drill - Heavy Duty Head - Cleco Dotco

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	Free Speed (rpm)	Exhaust	Weight	Weight (kg)	Length	Length (mm)
				Lb		in	
15LF281-52	1/4"-28 i	3700 r/min	Rear	1.7	0.91 kg	11	279 mm
15LF282-52	1/4"-28 i	2800 r/min	Rear	1.7	0.91 kg	11	279 mm
15LF283-52	1/4"-28 i	2300 r/min	Rear	1.7	0.91 kg	11	279 mm
15LF284-52	1/4"-28 i	1700 r/min	Rear	1.8	0.82 kg	10.6	269 mm
15LF285-52	1/4"-28 i	700 r/min	Rear	2	0.77 kg	12	305 mm
15LF286-52	1/4"-28 i	525 r/min	Rear	2	0.77 kg	12	305 mm
15LF287-52	1/4"-28 i	420 r/min	Rear	2	0.77 kg	12	305 mm

All tools performance rated @ 90psi / 620 kPa air pressure.
Air inlet size: 1/4in
Minimum Hose I.D.: 1/4in / 6.4mm

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

0.9hp / 0.67kW

470-5600 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	Free Speed (rpm)	Exhaust	Weight	Weight (kg)	Length	Length (mm)
				Lb		in	
15LN281-62	1/4"-28 i	5000 r/min	Rear	2.5	1.13 kg	12	305 mm
15LN282-62	1/4"-28 i	3100 r/min	Rear	2.5	1.13 kg	12	305 mm
15LN283-62	1/4"-28 i	1850 r/min	Rear	2.5	1.13 kg	12	305 mm
15LN284-62	1/4"-28 i	1530 r/min	Rear	2.5	1.13 kg	12	305 mm
15LN285-62	1/4"-28 i	1250 r/min	Rear	2.5	1.13 kg	12	305 mm
15LN286-62	1/4"-28 i	770 r/min	Rear	2.5	1.13 kg	13.5	343 mm
15LN287-62	1/4"-28 i	470 r/min	Rear	2.5	1.13 kg	12	305 mm
15LN288-62	1/4"-28 i	5600 r/min	Rear	2.5	1.13 kg	12	305 mm

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 - Cleco Dotco

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	Free Speed (rpm)	Exhaust	Weight	Weight (kg)	Length	Length (mm)
				Lb		in	
15LN281-52	1/4"-28 i	3500 r/min	Rear	2.65	1.20 kg	11.5	292 mm
15LN283-52	1/4"-28 i	1300 r/min	Rear	2.65	1.20 kg	11.5	292 mm
15LN284-52	1/4"-28 i	1070 r/min	Rear	3.09	1.40 kg	12.8	325 mm
15LN285-52	1/4"-28 i	870 r/min	Rear	3.09	1.40 kg	12.8	325 mm
15LN286-52	1/4"-28 i	540 r/min	Rear	3.09	1.40 kg	12.8	325 mm
15LN288-52	1/4"-28 i	3900 r/min	Rear	2.65	1.20 kg	11.5	292 mm

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

15LFQ Series Right Angle Drill - Quick Chang

0.4hp / 0.30kW

Ideal for Multiple Applications

- Power unit for quick release angle head attachments
- Rear Exhaust
- Speed dependent on Head Fitted Q5X Lower Speed / Q4X,Q6X,Q7X,Q9X Higher Speed



Model	Termination	Free Speed (rpm)	Exhaust	Weight	Weight (kg)
				Lb	
15LF281Q	Q	3700/5300 r/min	Rear	1.6	0.73 kg
15LF282Q	Q	2800/4000 r/min	Rear	1.6	0.73 kg
15LF283Q	Q	2300/3300 r/min	Rear	1.6	0.73 kg
15LF284Q	Q	1700/2400 r/min	Rear	1.8	0.82 kg
15LF285Q	Q	700/1000 r/min	Rear	1.9	0.86 kg
15LF286Q	Q	525/750 r/min	Rear	1.9	0.86 kg
15LF287Q	Q	420/600 r/min	Rear	1.9	0.86 kg

All tools performance rated @ 90psi / 620 kPa air pressure.
Air inlet size: 1/4in
Minimum Hose I.D.: 1/4in / 6.4mm

15LNQ Series Right Angle Drill - Quick Change - Cleco Dotco

0.9hp / 0.67kW-

Ideal for Multiple Applications

- Power unit for quick change angle heads
- Rear Exhaust
- Lock off safety lever standard
- Speed dependent on Head Fitted Q5X Lower Speed / Q4X,Q6X,Q7X,Q9X Higher Speed

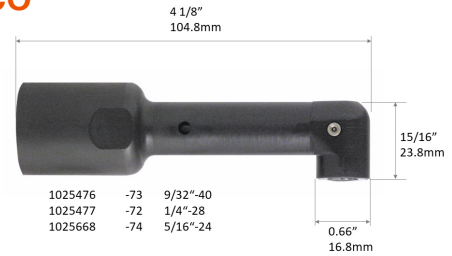


Model	Termination	Free Speed (rpm)	Exhaust	Weight	Weight (kg)
				Lb	
15LN281Q	Q	3500/5000 r/min	Rear	2.31	1.05 kg
15LN282Q	Q	2200/3100 r/min	Rear	2.31	1.05 kg
15LN283Q	Q	1300/1850 r/min	Rear	2.31	1.05 kg
15LN284Q	Q	1070/1530 r/min	Rear	2.31	1.05 kg
15LN285Q	Q	870/1000 r/min	Rear	2.31	1.05 kg
15LN286Q	Q	540/770 r/min	Rear	2.31	1.05 kg
15LN287Q	Q	320/470 r/min	Rear	2.31	1.05 kg

All tools performance rated @ 90psi / 620 kPa air pressure.
Air inlet size: 1/4in
Minimum Hose I.D.: 1/4in / 6.4mm

15L Series Compact Angle Head - Cleco Dotco

- 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
- -73 Threaded Collet Max #10/5mm - Collets Ordered Separately

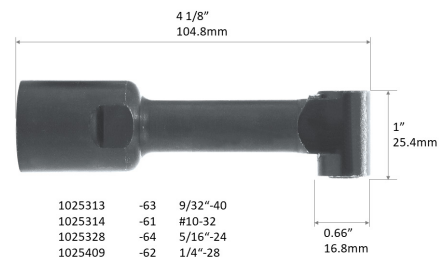


Model	Description	Tool Termination	Spindle Size
1025476	Compact Angle Head - 700 Series	-73	9/32"-40 Internal Thread
1025477	Compact Angle Head - 700 Series	-72	1/4"-28 Internal Thread
1025668	Compact Angle Head - 700 Series	-74	5/16"-24 Internal Thread

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 or 15LN and replace the termination number -62 for example with the termination number of the desired optional attachment -72 for example from this page.

15L Series Light Duty Angle Head - Cleco Dotco

- -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
- -64 5/16"-24 Internal Thread

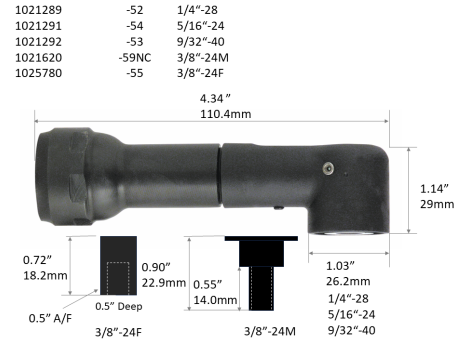


Model	Description	Tool Termination	Spindle Size
1025313	Mini Angle Head - 600 Series	-63	9/32"-40 Internal Thread
1025328	Mini Angle Head - 600 Series	-64	5/16"-24 Internal Thread
1025409	Mini Angle Head - 600 Series	-62	1/4"-28 Internal Thread

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 or 15LN and replace the termination number -62 for example with the termination number of the desired optional attachment -63 for example from this page.

15L Series Heavy Duty Angle Head - Cleco Dotco

- -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
- -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
1021620	Heavy Duty Angle Head - 500 Series	-59NC	3/8"-24 External 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 or 15LN and replace the termination number -52 for example with the termination number of the desired optional attachment -59NC for example from this page.

15L Series 45 Degree Angle Head - Cleco Dotco

- 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
- -44 5/16"-24 Internal Thread

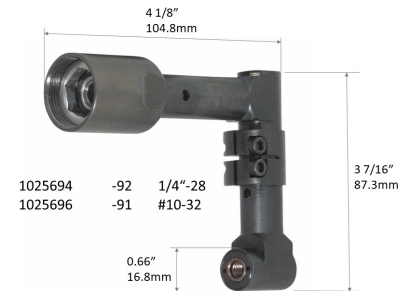


Model	Description	Tool Termination	Spindle Size
1025730	45° Angle Head	-42	1/4"-28 Internal Thread
1025731	45° Angle Head	-43	9/32"-40 Internal Thread
1025733	45° Angle Head	-44	5/16"-24 Internal Thread

These drill attachments can be ordered as a separate accessory item or as part of a complete model.

15L Series 360° Angle Head - Cleco Dotco

- 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

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 or 15LN and replace the termination number -62 for example with the termination number of the desired optional attachment -92 for example from this page

15LQ Series Quick Change Angle Head - Cleco Dotco

- For Use with Quick Change Power Units
- Right Angle, 45 Degree and 360 degree version for optimum access



Model	Description	Tool Termination	Spindle Size
302206PT-Q42	45° Angle Head	-42	1/4"-28 Internal Thread
302206PT-Q43	45° Angle Head	-43	9/32"-40 Internal Thread
302206PT-Q52	Heavy Duty Angle Head - 500 Series	-52	1/4"-28 Internal Thread
302206PT-Q53	Heavy Duty Angle Head - 500 Series	-53	9/32"-40 Internal Thread
302206PT-Q59	Heavy Duty Angle Head - 500 Series	-59NC	3/8"-24 External Thread
302206PT-Q62	Mini Angle Head - 600 Series	-62	1/4"-28 Internal Thread
302206PT-Q73	Compact Angle Head - 700 Series	-73	9/32"-40 Internal Thread
303306PT-Q63	Mini Angle Head - 600 Series	-63	9/32"-40 Internal Thread
303306PT-Q72	Compact Angle Head - 700 Series	-72	1/4"-28 Internal Thread
303306PT-Q92	360° Angle Head	-92	1/4"-28 Internal Thread

Collets

Collets Threaded 9/32"-40 - Inch - Cleco Dotco

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



Model	Description
1006408	0.060 Inch
1005180	0.063 Inch
1006412	0.067 Inch
1005875	0.081 Inch
1005182	0.094 Inch
1005684	0.098 Inch
1006395	0.100 Inch
1005183	0.109 Inch
1005873	0.120 Inch
1005184	0.125 Inch
1013904	0.129 Inch
1005185	0.141 Inch
1005872	0.144 Inch
1006373	0.147 Inch
1005186	0.156 Inch
1005926	0.157 Inch
1005682	0.159 Inch
1005876	0.161 Inch
1006035	0.166 Inch
1005187	0.172 Inch
1005977	0.173 Inch
1006346	0.177 Inch
1005927	0.185 Inch
1005188	0.188 Inch
1005871	0.189 Inch
1006001	0.191 Inch
1005681	0.194 Inch

Other sizes available, please contact Cleco Production Tools

Collets

Collets Threaded 9/32"-40 - Metric - Cleco Dotco

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



Model	Description
316PT	1.6 mm
320PT	2.0 mm
324PT	2.4 mm
325PT	2.5 mm
326PT	2.6 mm
330PT	3.0 mm
331	3.1 mm
332PT	3.2 mm
333PT	3.3 mm
335PT	3.5 mm
338PT	3.8 mm
340PT	4.0 mm
341PT	4.1 mm
342PT	4.2 mm
344PT	4.4 mm
345PT	4.5 mm
347PT	4.7 mm
348PT	4.8 mm
349	4.9 mm
350PT	5.0 mm

Other sizes available, please contact Cleco Production Tools

15L14 Series - Right Angle Drill - Cleco Dotco

0.3hp / 0.22kW

500-20000rpm

Up to 1/4" Capacity

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



Model	Termination	Free Speed (rpm)	Exhaust	Weight	Weight (kg)	Length	Length (mm)
				Lb		in	
15L1470-37	5/32" Chuck	12000 r/min	Rear	1.2	0.54 kg	6.9	175 mm
15L1471-37	5/32" Chuck	20000 r/min	Rear	1.2	0.54 kg	6.9	175 mm
15L1487-32	1/4"-28 i	1500 r/min	Rear	1.2	0.54 kg	8	203 mm
15L1487-36	1/4" Collet	1500 r/min	Rear	1.2	0.54 kg	8	203 mm
15L1487-38	1/4" Chuck	1500 r/min	Rear	1.5	0.68 kg	8	203 mm
15L1488-36	1/4" Collet	2400 r/min	Rear	1.6	0.73 kg	8.7	221 mm
15L1488-38	1/4" Chuck	2400 r/min	Rear	1.5	0.68 kg	8	203 mm
15L1489-32	1/4"-28 i	3600 r/min	Rear	1.6	0.73 kg	8.7	221 mm
15L1489-36	1/4" Collet	3600 r/min	Rear	1.6	0.73 kg	8.7	221 mm
15L1489-51	3/8" Chuck	3600 r/min	Rear	1.5	0.68 kg	8	203 mm
15L1491-38	1/4" Chuck	500 r/min	Rear	1.5	0.68 kg	8	203 mm

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

Air inlet size: 1/4in

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

15LF Series Inline Drill 1/4" Chuck - Cleco Dotco

0.4hp / 0.30kW
600-28500rpm

- Supplied with 1/4" Jacobs® Keyed Chuck
- Rear Exhaust
- Lock off safety lever standard



Model	Termination	Free Speed (rpm)	Exhaust	Weight	Weight (kg)	Length	Length (mm)
				Lb		in	
15LF080-38	1/4" Chuck	28500 r/min	Rear	0.9	0.41 kg	6.3	160 mm
15LF081-38	1/4" Chuck	5300 r/min	Rear	1.32	0.60 kg	8	203 mm
15LF082-38	1/4" Chuck	4000 r/min	Rear	1.32	0.60 kg	8	203 mm
15LF083-38	1/4" Chuck	3300 r/min	Rear	1.32	0.60 kg	8	203 mm
15LF084-38	1/4" Chuck	2400 r/min	Rear	1.32	0.60 kg	8	203 mm
15LF085-38	1/4" Chuck	1000 r/min	Rear	1.32	0.60 kg	8	203 mm
15LF086-38	1/4" Chuck	750 r/min	Rear	1.32	0.60 kg	8	203 mm
15LF087-38	1/4" Chuck	600 r/min	Rear	1.98	0.90 kg	8.6	218 mm

All tools performance rated @ 90psi / 620 kPa air pressure.
Air inlet size: 1/4in
Minimum Hose I.D.: 1/4in / 6.4mm

15LF Series Inline Drill 3/8"-24 - Cleco Dotco

0.4hp / 0.30kW
600-28500rpm

- Supplied with 3/8"-24 Male Threaded Termination for Keyless Chuck/Collet
- Rear Exhaust
- Lock off safety lever standard



Model	Termination	Free Speed (rpm)	Exhaust	Weight	Weight (kg)	Length	Length (mm)
				Lb		in	
15LF081-40	3/8" - 24 e	5300 r/min	Rear	1.32	0.60 kg	8	203 mm
15LF082-40	3/8" - 24 e	4000 r/min	Rear	1.32	0.60 kg	7.3	185 mm
15LF083-40	3/8" - 24 e	3300 r/min	Rear	1.32	0.60 kg	8	203 mm
15LF085-40	3/8" - 24 e	1000 r/min	Rear	1.32	0.60 kg	8	203 mm
15LF087-40	3/8" - 24 e	600 r/min	Rear	1.98	0.90 kg	8.6	218 mm

All tools performance rated @ 90psi / 620 kPa air pressure.
Air inlet size: 1/4in
Minimum Hose I.D.: 1/4in / 6.4mm

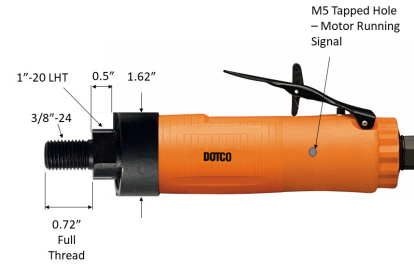
15LN0 Series Inline Power Unit- Cleco Dotco

0.9hp / 0.67kW
500-20000 rpm

Cleco

15LN0XX-40T Tools

- Inline power unit with motor running signal
- Lock off safety lever standard
- Designed to incorporate into other equipment
- Rear Exhaust



Model	Termination	Free Speed (rpm)	Exhaust	Weight	Weight (kg)	Length	Length (mm)
				Lb		in	
15LN080-40T	3/8"-24	20000 r/min	Rear	2.65	1.20 kg	11.5	292 mm
15LN081-40T	3/8"-24	5200 r/min	Rear	2.65	1.20 kg	11.5	292 mm
15LN082-40T	3/8"-24	3200 r/min	Rear	2.65	1.20 kg	11.5	292 mm
15LN083-40T	3/8"-24	1900 r/min	Rear	2.65	1.20 kg	11.5	292 mm
15LN084-40T	3/8"-24	1600 r/min	Rear	2.65	1.20 kg	11.5	292 mm
15LN085-40T	3/8"-24	1300 r/min	Rear	2.65	1.20 kg	11.5	292 mm
15LN0855-40T	3/8"-24	325 r/min	Rear	2.65	1.20 kg	11.5	292 mm
15LN086-40T	3/8"-24	800 r/min	Rear	2.65	1.20 kg	11.5	292 mm
15LN087-40T	3/8"-24	500 r/min	Rear	2.65	1.20 kg	11.5	292 mm

All tools performance rated @ 90psi / 620 kPa air pressure.
Air inlet size: 1/4in

14CF Series Pistol Drill Non-Reversible 1/4" Chuck- Cleco Dotco

0.4hp / 0.33kW
600-2900rpm
1/4" Chuck

- Comfort grip with ergonomic finger and thumb guides to aid control
- Supplied with 1/4" Jacobs® Keyed Chuck
- Excellent for aerospace, metal fabrication, and wood working applications



Model	Termination	Free Speed (rpm)	Exhaust	Weight	Weight (kg)	Length	Length (mm)
				Lb		in	
14CFS90-38	1/4" Chuck	29000 r/min	Rear	1.54	0.70 kg	5.7	145 mm
14CFS91-38	1/4" Chuck	5200 r/min	Rear	1.54	0.70 kg	5.7	145 mm
14CFS92-38	1/4" Chuck	3800 r/min	Rear	1.54	0.70 kg	5.7	145 mm
14CFS93-38	1/4" Chuck	3200 r/min	Rear	1.54	0.70 kg	5.7	145 mm
14CFS94-38	1/4" Chuck	2400 r/min	Rear	1.54	0.70 kg	5.7	145 mm
14CFS95-38	1/4" Chuck	1000 r/min	Rear	1.76	0.80 kg	6.9	175 mm
14CFS96-38	1/4" Chuck	700 r/min	Rear	1.76	0.80 kg	6.9	175 mm
14CFS97-38	1/4" Chuck	600 r/min	Rear	1.76	0.80 kg	6.9	175 mm

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

14CF Series Pistol Drill Non-Reversible 3/8" Chuck- Cleco Dotco

0.4hp / 0.33kW
600-2900rpm
3/8" Chuck

- 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	Free Speed (rpm)	Exhaust	Weight	Weight (kg)	Length	Length (mm)
				Lb		in	
14CFS90-51	3/8" Chuck	29000 r/min	Rear	1.54	0.70 kg	5.7	145 mm
14CFS91-51	3/8" Chuck	5200 r/min	Rear	1.54	0.70 kg	5.7	145 mm
14CFS92-51	3/8" Chuck	3800 r/min	Rear	1.54	0.70 kg	5.7	145 mm
14CFS93-51	3/8" Chuck	3200 r/min	Rear	1.54	0.70 kg	5.7	145 mm
14CFS94-51	3/8" Chuck	2400 r/min	Rear	1.54	0.70 kg	5.7	145 mm
14CFS95-51	3/8" Chuck	1000 r/min	Rear	1.76	0.80 kg	6.9	175 mm
14CFS96-51	3/8" Chuck	700 r/min	Rear	1.76	0.80 kg	6.9	175 mm
14CFS97-51	3/8" Chuck	600 r/min	Rear	1.76	0.80 kg	6.9	175 mm

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

14CN Series Pistol Drill Non-Reversible 1/4" Chuck - Cleco Dotco

0.9hp / 0.67kW
500-20000rpm

- Comfort grip with ergonomic finger and thumb guides to aid control
- Supplied with 1/4" Jacobs® Keyed Chuck
- Excellent for aerospace, metal fabrication, and wood working applications
- 1/2" models equipped with dead handle
- 1/2" models equipped with dead handle



Model	Termination	Free Speed (rpm)	Exhaust	Weight	Weight (kg)	Length	Length (mm)
				Lb		in	
14CNL90-38	1/4" Chuck	20000 r/min	Rear	2.2	1.00 kg	6.8	173 mm
14CNL92-38	1/4" Chuck	3200 r/min	Rear	2.43	1.10 kg	7.2	183 mm
14CNL98-38	1/4" Chuck	6000 r/min	Rear	2.2	1.00 kg	6.8	173 mm

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

14CN Series Pistol Drill Non-Reversible 3/8" Chuck - Cleco Dotco

0.9hp / 0.67kW
500-20000rpm

- Comfort grip with ergonomic finger and thumb guides to aid control
- Supplied with 3/8" Jacobs® Keyed Chuck
- Excellent for aerospace, metal fabrication, and wood working applications



Model	Termination	Free Speed (rpm)	Exhaust	Weight	Weight (kg)	Length	Length (mm)
				Lb		in	
14CNL91-51	3/8" Chuck	5200 r/min	Rear	2.43	1.10 kg	7.2	183 mm
14CNL92-51	3/8" Chuck	3200 r/min	Rear	2.43	1.10 kg	7.2	183 mm
14CNL95-51	3/8" Chuck	1300 r/min	Rear	2.87	1.30 kg	8.6	218 mm
14CNL97-51	3/8" Chuck	500 r/min	Rear	3.53	1.60 kg	9.1	231 mm
14CNL98-51	3/8" Chuck	6000 r/min	Rear	2.2	1.00 kg	6.8	173 mm

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

14CN Series Pistol Drill Non-Reversible 1/2" Chuck - Cleco Dotco

0.9hp / 0.67kW
500-20000rpm



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

Model	Termination	Free Speed (rpm)	Exhaust	Weight	Weight (kg)	Length	Length (mm)
				Lb		in	
14CNL92-53	1/2" Chuck	3200 r/min	Rear	2.43	1.10 kg	7.2	183 mm
14CNL97-53	1/2" Chuck	500 r/min	Rear	3.53	1.60 kg	9.1	231 mm
14CNL98-53	1/2" Chuck	6000 r/min	Rear	2.2	1.00 kg	6.8	173 mm

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

14CN Series Pistol Drill Non-Reversible 3/8"-24 - Cleco Dotco

0.9hp / 0.67kW
500-20000rpm



- Comfort grip with ergonomic finger and thumb guides to aid control
- Supplied with 3/8"-24 termination for collet or chuck
- Excellent for aerospace, metal fabrication, and wood working applications

Model	Termination	Free Speed (rpm)	Exhaust	Weight	Weight (kg)	Length	Length (mm)
				Lb		in	
14CNL90-40	3/8" - 24 e	20000 r/min	Rear	2.2	1.00 kg	6.8	173 mm
14CNL91-40	3/8" - 24 e	5200 r/min	Rear	2.43	1.10 kg	7.2	183 mm
14CNL92-40	3/8" - 24 e	3200 r/min	Rear	2.43	1.10 kg	7.2	183 mm
14CNL95-40	3/8" - 24 e	1300 r/min	Rear	2.87	1.30 kg	8.6	218 mm
14CNL97-40	3/8" - 24 e	500 r/min	Rear	3.53	1.60 kg	9.1	231 mm
14CNL98-40	3/8" - 24 e	6000 r/min	Rear	2.2	1.00 kg	6.8	173 mm

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

135DPV Series Pistol Drill Non-Reversible Variable Speed - Cleco Dotco

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 min/max speeds shown



Model	Termination	Free Speed (rpm)	Governed RPM Range	Exhaust	Weight	Weight (kg)	Length	Length (mm)
			r/min		Lb		in	
135DPV-14B-50	1/2" Chuck	1250 r/min	400 – 1,200 RPM	Rear	3.31	1.50 kg	9.3	236 mm
135DPV-14B-51	3/8" Chuck	1250 r/min	400 – 1,200 RPM	Rear	3.31	1.50 kg	9.3	236 mm
135DPV-28B-51	3/8" Chuck	2600 r/min	700 – 2,400 RPM	Rear	3.31	1.50 kg	8.5	216 mm
135DPV-7B-43	3/8" Chuck	600 r/min	150 – 550 RPM	Rear	3.53	1.60 kg	9.6	244 mm
135DPV-7B-50	1/2" Chuck	600 r/min	150 – 550 RPM	Rear	3.53	1.60 kg	9.6	244 mm

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

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
- MP1463-51 is Reversible Other Models are Non Reversible



Model	Termination	Free Speed (rpm)	Exhaust	Weight	Weight (kg)	Length	Length (mm)
				Lb		in	
MP1457-51	3/8" Chuck	2600 r/min	Rear	1.98	0.90 kg	7.5	191 mm
MP1458-55	1/2" Chuck	1200 r/min	Rear	2.2	1.00 kg	9	229 mm
MP1463-51	3/8" Chuck	1800 r/min	Rear	2.43	1.10 kg	6.8	173 mm

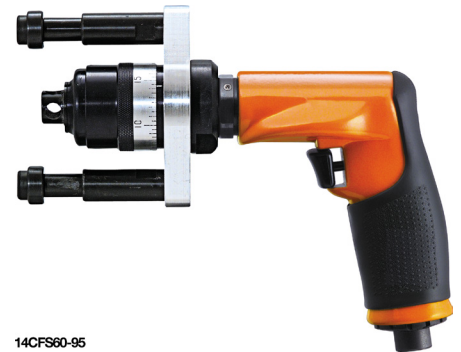
All tools performance rated @ 90psi / 620 kPa air pressure

14CF / 14CN Series Rivet Shaver - Cleco Dotco

14CF 0.4hp / 0.3kW 29000rpm

14CN 0.9hp / 0.75kW 20000rpm

- 0.00025 or 0.0005 Cutter Adjustment
- Stabilizer 02-8120 included on -95 and -97 models
- Optional Adjustment Guard 02-8150 prevents adjustment by operator - can not be used with Stabilizer tools
- Standard rivet shavers accept skirts for cutters up to 3/4" in diameter - these are sold separately
- -96XL version for 1" and greater skirts.



14CFS60-95

Model	Free Speed (rpm)	Exhaust	Weight	Weight (kg)	Length	Length (mm)
			Lb		in	
14CFS60-95	29000 r/min	Rear	2.2	1 kg	8.2	208.3 mm
14CFS60-96	29000 r/min	Rear	2.2	1 kg	8.2	208.3 mm
14CFS60-97	29000 r/min	Rear	2.2	1 kg	8.2	208.3 mm
14CFS60-98	29000 r/min	Rear	2.2	1 kg	8.2	208.3 mm
14CNL60-95	20000 r/min	Rear	3.5	1.6 kg	8.9	226.1 mm
14CNL60-96	20000 r/min	Rear	3.5	1.6 kg	8.9	226.1 mm
14CNL60-96XL	20000 r/min	Rear	3.5	1.6 kg	8.9	226.1 mm
14CNL60-97	20000 r/min	Rear	3.5	1.6 kg	8.9	226.1 mm

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

Jacobs Chucks

Keyed Chucks to 1/2" Capacity

- Jacobs Precision Chucks
- Range of Capacity and Mounting

Model	Description	Tool Termination	Chuck Size	Spindle Size
			in	
1075	OB	-37	5/32 in	5/16"-24
1005078	1 BA	-38	1/4 in	3/8"-24
1001252	41 BA (med. duty)	-51	3/8 in	3/8"-24
1009726	33 BA	-53	1/2 in	3/8"-24



300 Series - Collet Chuck

Up to 1/4" Capacity

- Supplied with Standard Collet: 1/4" (#308).
- 5/16"-24 or 3/8"-24 Thread Mount



Model	Description
14-1148	300 Series Collet Chuck 5/16"-24 Thread Mount
14-3050	300 Series Collet Chuck 3/8"-24 Thread Mount

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

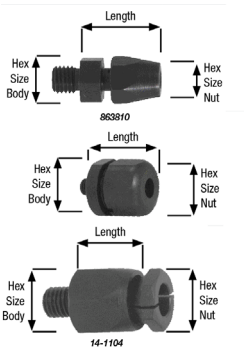


Model	Max Pressure	Max Flow	Min Flow	Weight
	lb/in² bar	cfm l/min	cfm l/min	Lb
240461PT	100 lb/in² 6.9 bar	20 570	5 145	0.176

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

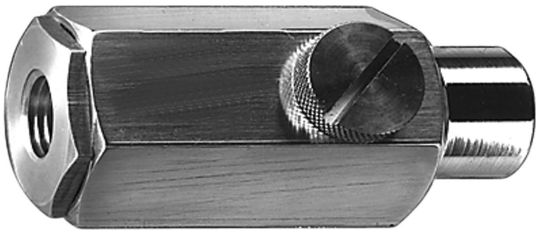


Model	Shank Diameter Capacity	Length	Length		Drill Diameter Capacity
		in mm	in	mm	in mm
14-0170	6mm	0.7 in	0.7	18	
14-1104	1/4 in	0.7 in	0.7	18	
14-1568	1/8 in	0.65 in	0.65	17	
14-1569	1/4 in	0.7 in	0.7	18	
863806	1/4 in	0.8 in	0.8	20	1/4 in 6.4mm
863810	3/16 in	0.8 in	0.8	20	3/16 in 4.8mm

Airline Filter & Lubricator

Mounts in Hose Line.

- One ounce reservoir good for average 8-hour shift.



Model	Description	Max Pressure	Air Inlet Size
		lb/in² bar	in
45-0201	1/4" NPTF Hose Line Lubricator	100 lb/in² 6.9 bar	1/4 in

Flexible Air Hose

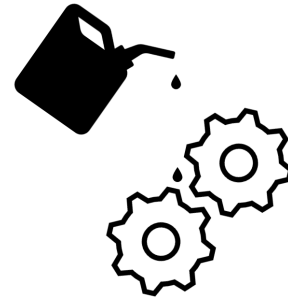
- Buna N Material with Flexible Nylon Braid



Model	Description	Fittings (NPT)	Tool Series	Diameter	Length	Length
				in	ft	m
45-1307	3/16" Hose I.D; 1/4"M X 1/8"M Fittings; 7 ft	1/8M - 1/4M		3/16	7	2.13
45-1408	1/4" Hose I.D; 1/4"M X 1/4"M Fittings; 8 ft	1/4M - 1/4M	12-10, 12-11, 12-12, 12-13, 14CF, 15LF, 15-14	1/4	8	2.44
45-1409	1/4" Hose I.D; 1/4"M X 1/8"M Fittings; 8 ft	1/8M - 1/4M	10-10, 10-11, 10-12	1/4	8	2.44
45-1508	5/16" Hose I.D; 1/4"M X 1/4"M Fittings 8 ft	1/4M - 1/4M	10-20, 10-21, 10-22, 10-25, 10-26, 10-27, 12-20, 12-21, 12-22, 12-25, 12-26, 12-27, 12-28, 14CS, 14CN, 15LS, 15LN	5/16	8	2.44

General: 3/16" & 1/4" hoses have braided covers, all others have neoprene covers.

Lubricants



Part Number	Size	Description	MSDS Number
45-0918	1 qt. plastic	Air Tool Oil - Qt.	CPT-155
45-0980	2 oz. tube	Cleco Dotco Angle Head Grease Moly-XL 250 for Grinders/Sanders	CPT-148
45-0983	2 oz. tube	Cleco Dotco Planetary Gear Grease for Grinders & Sanders	CPT-147
513156	18 oz. can	Magnalube-G Assembly Tool Teflon Grease	CPT-145
533485	1 gal. metal	Axial Piston Motor Air Tool Oil 1 gal. can	CPT-153
539317	1 ct quart plastic bottle	Univis Pulse Tool Hydraulic Oil	CPT-157
540394	2.8oz Tube	Molykote G-N Metal Assembly Paste for Angle & Planetary	CPT-146
541445	500g Can	Rheolube 363AX-1 500g can	CPT-286
A123771	1 gal. metal	Shell Gadus S2 V220 00 16 oz can	

Under normal conditions of use, lubrication products sold separately for or used within these tools should not cause an exposure hazard. Refer to the Material Safety Data Sheet M.S.D.S. for Safety and Disposal information. M.S.D.S. sheets are available upon request.

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	Height		Length		Weight	
	in	mm	in	mm	lb	kg
10080005	1.102	28	3.307	84	0.220	0.10
10080010	4.429	112.5	3.307	84	0.397	0.18
10080015	1.102	28	2.48	63	0.287	0.13
10080020	4.429	112.5	2.480	63	0.49	0.22

Drill Cutters for Flat Offset Angle Drill

- Alternative drills may be manufactured on request. E.g. : special diameters and lengths
- 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	Cutter Flute Length		Drill Diameter	
	mm	in	in	mm
33000020	12	0.472	0.098	2.5
33000125	8	0.315	0.098	2.5
33000625	20	0.79	0.098	2.5
33000025	12	0.472	0.118	3
33000030	12	0.472	0.126	3.2
33000132	8	0.315	0.126	3.2
33000632	20	0.79	0.126	3.2
33000040	12	0.472	0.157	4
33000240	15	0.59	0.157	4
33000248	15	0.59	0.189	4.8

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 in light alloys or steel with an accuracy of .001" / .025mm micro adjustment
- 70100012 Fixed speed 460rpm (RB 1130 | 60QBSF) using 14CSL
- 70100031 Adjustable speed 150-550rpm (RB 1130-2 | 70QBSF) using 135DPV7
- Wide range of interchangeable collets - Ordered Separately
- Feed lever with 360° orientation
- Fixed Speed 0.6hp / 0.4kW 460rpm Adjustable Speed 0.7hp / 0.5kW 150-550rpm



Model	Motor	Speed	Fixturing	Accessories
	Configura- tion	r/min	Options	
70100012	Pistol Grip	500	NA	Spindle Collet Spindle Pilot Back Spot Facing Cutters
70100031	Pistol Grip	150-550	NA	Spindle Collet Spindle Pilot Back Spot Facing Cutters

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

Manual Back Spotfacer Collets - Cleco

Model	Diameter (mm)	Diameter in
70110200	2 mm	0.0787 in
70110250	2.5 mm	0.0984 in
70110300	3 mm	0.1181 in
70110350	3.5 mm	0.1378 in
70110400	4 mm	5/32 in
70110480	4.8 mm	3/16 in
70110500	5 mm	0.1969 in
70110550	5.5 mm	0.2165 in
70110600	6 mm	0.2362 in
70110635	6.35 mm	1/4 in
70110794	7.94 mm	5/16 in
70110952	9.52 mm	3/8 in

Alternate collet diameters available upon request.



RB 156 - Microstop Cage

Stroke 3.5mm/0.14in
Cutter Thread M6 x 1

- Different mounting bases available
- Reduced dimensions for tight access areas
- 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").



Model	Input Style	Shank		Cutter Thread	Stroke mm	Vacuum	Mounting	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
100000100 W	Fixed Shank	0.189	4.8	M6 x 1	3.5	No	OFFSET MOUNTING BASE	Large	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

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
- Reduced dimensions for tight access areas
- 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").



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
10005000	Fixed Shank	0.236	6.0	M6 x 1	6.0	No	None/Flat Base	Small	None	21	101	95	120
10005000W	Fixed Shank	0.236	6.0	M6 x 1	6.0	No	None/Flat Base	Large	None	21	101	95	120
10005001	Fixed Shank	0.236	6.0	M6 x 1	6.0	Yes	None/Flat Base	Small	None	21	101	95	120
10005001W	Fixed Shank	0.236	6.0	M6 x 1	6.0	Yes	None/Flat Base	Large	None	21	101	95	120
10005050	Fixed Shank	0.236	6.0	1/4"-28	6.0	No	None/Flat Base	Small	None	21	101	95	120
10005050W	Fixed Shank	0.236	6.0	1/4"-28	6.0	No	None/Flat Base	Large	None	21	101	95	120
10005051	Fixed Shank	0.236	6.0	1/4"-28	6.0	Yes	None/Flat Base	Small	None	21	101	95	120
10005051W	Fixed Shank	0.236	6.0	1/4"-28	6.0	Yes	None/Flat Base	Large	None	21	101	95	120
10005200	Fixed Shank	0.236	6.0	M6 x 1	6.0	No	None/Offset Base	Small	None	21	101	95	120
10005200W	Fixed Shank	0.236	6.0	M6 x 1	6.0	No	None/Offset Base	Large	None	21	101	95	120
10005250	Fixed Shank	0.236	6.0	1/4"-28	6.0	No	None/Offset Base	Small	None	21	101	95	120
10005250W	Fixed Shank	0.236	6.0	1/4"-28	6.0	Yes	None/Offset Base	Large	None	21	101	95	120
10005305	Fixed Shank	0.236	6.0	M6 x 1	6.0	No	Tapped M16F for Nose	Small	Nylon	21	101	95	120
10005305W	Fixed Shank	0.236	6.0	M6 x 1	6.0	No	Tapped M16F for Nose	Large	Nylon	21	101	95	120
10005306	Fixed Shank	0.236	6.0	M6 x 1	6.0	Yes	Tapped M16F for Nose	Small	None	21	101	95	120

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
10005306W	Fixed Shank	0.236	6.0	M6 x 1	6.0	Yes	Tapped M16F for Nose	Large	None	21	101	95	120
10005355	Fixed Shank	0.236	6.0	1/4"-28	6.0	No	Tapped M16F for Nose	Small	Nylon	21	101	95	120
10005355W	Fixed Shank	0.236	6.0	1/4"-28	6.0	No	Tapped M16F for Nose	Large	Nylon	21	101	95	120
10005356	Fixed Shank	0.236	6.0	1/4"-28	6.0	Yes	Tapped M16F for Nose	Small	None	21	101	95	120
10005356W	Fixed Shank	0.236	6.0	1/4"-28	6.0	Yes	Tapped M16F for Nose	Large	None	21	101	95	120

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
- Reduced dimensions for tight access areas
- 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").



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										
10010001	Fixed Shank	0.236	6.0	M6 x 1	7.5	Yes	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
10010010	Fixed Shank	0.236	6.0	M6 x 1	7.5	No	M19F	Small	Hard Chrome	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
10010015	Fixed Shank	0.236	6.0	M6 x 1	7.5	No	M19F	Small	Nylon	28	98	91	175
10010015W	Fixed Shank	0.236	6.0	M6 x 1	7.5	No	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
10010016W	Fixed Shank	0.236	6.0	M6 x 1	7.5	Yes	M19F	Large	Nylon	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
10010110W	Fixed Shank	0.236	6.0	1/4"-28	7.5	No	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
10010111W	Fixed Shank	0.236	6.0	1/4"-28	7.5	Yes	M19F	Large	Hard Chrome	28	98	91	175
10010115	Fixed Shank	0.236	6.0	1/4"-28	7.5	No	M19F	Small	Nylon	28	98	91	175
10010115W	Fixed Shank	0.236	6.0	1/4"-28	7.5	No	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
10010116W	Fixed Shank	0.236	6.0	1/4"-28	7.5	Yes	M19F	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
10010205W	Fixed Shank	0.236	6.0	M6 x 1	7.5	Yes	M30 x 1M	Large	Nylon	28	98	91	175

RB 257 - Microstop Cage

Stroke 6mm/0.24"

Cutter Thread M6 x 1

- 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 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.



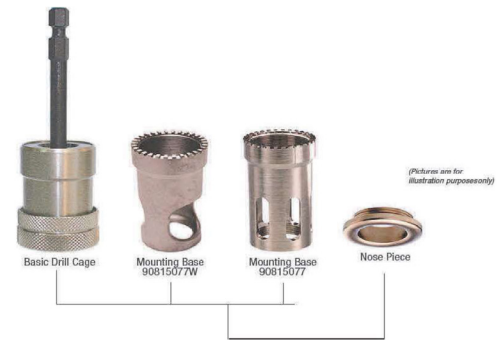
Model	Input Style	Shank		Cutter Thread	Stroke mm	Vacuum	Mounting Base Style	Window Size	Nose Insert Style	Diameter Max. mm	Overall Length Max. mm	Overall Length Min. mm	Weight g
		in	mm										
10015001	Ball Pivot	0.236	6.0	M6 x 1	6.0	Yes	M16F and M26M	Small	Rotary Celoron	29	92	88	165
10015001W	Ball Pivot	0.236	6.0	M6 x 1	6.0	Yes	M16F and M26M	Large	Rotary Celoron	29	92	88	165
10015010	Ball Pivot	0.236	6.0	M6 x 1	6.0	No	M16F and M26M	Small	Rotary Celoron	29	92	88	175
10015010W	Ball Pivot	0.236	6.0	M6 x 1	6.0	No	M16F and M26M	Large	Rotary Celoron	29	92	88	165
10015015	Ball Pivot	0.236	6.0	M6 x 1	6.0	No	M16F and M26M	Small	Hard Chrome	29	92	88	165
10015015W	Ball Pivot	0.236	6.0	M6 x 1	6.0	No	M16F and M26M	Large	Hard Chrome	29	92	88	165
10015016	Ball Pivot	0.236	6.0	M6 x 1	6.0	Yes	M16F and M26M	Small	Hard Chrome	29	92	88	165
10015016W	Ball Pivot	0.236	6.0	M6 x 1	6.0	Yes	M16F and M26M	Large	Hard Chrome	29	92	88	165
10015021	Ball Pivot	0.236	6.0	M6 x 1	6.0	Yes	M16F and M26M	Small	Celoron	29	92	88	165
10015021W	Ball Pivot	0.236	6.0	M6 x 1	6.0	Yes	M16F and M26M	Large	Celoron	29	92	88	165
10015200	Ball Pivot	0.236	6.0	M6 x 1	6.0	No	Three Nylon Pads	Small	None	29	92	88	165
10015200W	Ball Pivot	0.236	6.0	M6 x 1	6.0	No	Three Nylon Pads	Large	None	29	92	88	165
RC-10015020	Ball Pivot	0.236	6.0	M6 x 1	6.0	No	M16F and M26M	Small	Nylon	29	92	88	165
RC-10015020W	Ball Pivot	0.236	6.0	M6 x 1	6.0	No	M16F and M26M	Large	Nylon	29	92	88	165

RB(I) 258 - Microstop Cage

Stroke 27mm/1.06"

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

- Different mounting bases available
- Reduced dimensions for tight access areas
- 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").

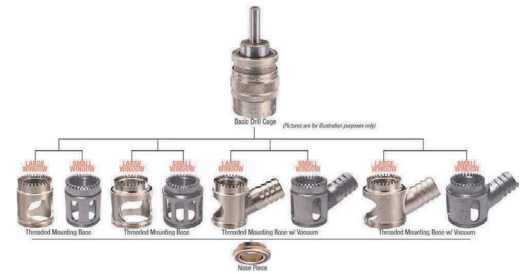


Model	Input Style	Shank		Cutter	Stroke	Vacuum	Mounting	Window	Nose Insert	Diameter Max.	Overall Length Max	Overall Length Min	Weight
		in	mm										
10015500PT	Ball Pivot	0.250	6.35	M6 x 1	27.0	No	Tapped M19F for Nose	Small	Nylon	29	156	141	250
10015500W	Ball Pivot	0.250	6.35	M6 x 1	27.0	No	Tapped M19F for Nose	Large	Nylon	29	156	141	250
10015550	Ball Pivot	0.250	6.35	1/4"-28	27.0	No	Tapped M19F for Nose	Small	Nylon	29	156	141	250
10015550W	Ball Pivot	0.250	6.35	1/4"-28	27.0	No	Tapped M19F for Nose	Large	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").
- 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").



Model	Input Style	Shank		Cutter	Stroke	Vacuum	Mounting	Window	Nose Insert	Diameter Max.	Overall Length Max	Overall Length Min	Weight
		in	mm										
10025001	Fixed Shank	0.236	6	M8 x 1	7.5	Yes	M26M	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
10025016	Fixed Shank	0.236	6	M8 x 1	7.5	Yes	M26M	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
10025105	Fixed Shank	0.236	6	M8 x 1	7.5	No	M30M	Small	Hard Chrome	28	98	91	185
10025105W	Fixed Shank	0.236	6	M8 x 1	7.5	No	M30M	Large	Hard Chrome	28	98	91	185
10025110	Fixed Shank	0.236	6	M8 x 1	7.5	No	M30M	Small	Nylon	28	98	91	185
10025110W	Fixed Shank	0.236	6	M8 x 1	7.5	No	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
10025111W	Fixed Shank	0.236	6	M8 x 1	7.5	Yes	M30M	Large	Nylon	28	98	91	185
10025116	Fixed Shank	0.236	6	M8 x 1	7.5	Yes	M30M	Small	Rotary Celoron	28	98	91	185
10025116W	Fixed Shank	0.236	6	M8 x 1	7.5	Yes	M30M	Large	Rotary Celoron	28	98	91	185
10025117	Fixed Shank	0.236	6	M8 x 1	7.5	Yes	M30M	Small	Hard Chrome	28	98	91	185
10025117W	Fixed Shank	0.236	6	M8 x 1	7.5	Yes	M30M	Large	Hard Chrome	28	98	91	185
RC_10025015	Fixed Shank	0.236	6	M8 x 1	7.5	No	M26M	Small	Nylon	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
RC-10025010W	Fixed Shank	0.236	6	M8 x 1	7.5	No	M26M	Large	Hard Chrome	28	98	91	185
RC-10025015W	Fixed Shank	0.236	6	M8 x 1	7.5	No	M26M	Large	Nylon	28	98	91	185

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.



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										
10020001	Ball Pivot	0.236	6	M8 x 1	7.0	Yes	M19F and M26M	Small	Rotary Celeron	29	98	88	165
10020001W	Ball Pivot	0.236	6	M8 x 1	7.0	Yes	M19F and M26M	Large	Rotary Celeron	29	98	88	165
10020001	Ball Pivot	0.236	6	M8 x 1	7.0	Yes	M19F and M26M	Small	Hard Chrome	29	98	88	165
100200010	Ball Pivot	0.236	6	M8 x 1	7.0	No	M19F and M26M	Small	Rotary Celeron	29	98	88	165
100200010W	Ball Pivot	0.236	6	M8 x 1	7.0	No	M19F and M26M	Large	Rotary Celeron	29	98	88	165
100200015	Ball Pivot	0.236	6	M8 x 1	7.0	No	M19F and M26M	Small	Hard Chrome	29	98	88	165
100200015W	Ball Pivot	0.236	6	M8 x 1	7.0	No	M19F and M26M	Large	Hard Chrome	29	98	88	165
10020001W	Ball Pivot	0.236	6	M8 x 1	7.0	Yes	M19F and M26M	Large	Hard Chrome	29	98	88	165
100200020	Ball Pivot	0.236	6	M8 x 1	7.0	No	M19F and M26M	Small	Nylon	29	98	88	165
100200020W	Ball Pivot	0.236	6	M8 x 1	7.0	No	M19F and M26M	Large	Nylon	29	98	88	165
100200021	Ball Pivot	0.236	6	M8 x 1	7.0	Yes	M19F and M26M	Small	Nylon	29	98	88	165
100200021W	Ball Pivot	0.236	6	M8 x 1	7.0	Yes	M19F and M26M	Large	Nylon	29	98	88	165
100200060	Ball Pivot	0.236	6	1/4"-28	7.0	No	M19F and M26M	Small	Rotary Celeron	29	98	88	165
100200060W	Ball Pivot	0.236	6	1/4"-28	7.0	No	M19F and M26M	Large	Rotary Celeron	29	98	88	165
100200065	Ball Pivot	0.236	6	1/4"-28	7.0	No	M19F and M26M	Small	Hard Chrome	29	98	88	165
100200065W	Ball Pivot	0.236	6	1/4"-28	7.0	No	M19F and M26M	Large	Hard Chrome	29	98	88	165
100200070	Ball Pivot	0.236	6	1/4"-28	7.0	No	M19F and M26M	Small	Nylon	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
10020070W	Ball Pivot	0.236	6	1/4"-28	7.0	No	M19F and M26M	Large	Nylon	29	98	88	165
10020105	Ball Pivot	0.236	6	M8 x 1	7.0	No	M19F and M26M	Small	Rotary Celeron	29	98	88	165
10020105W	Ball Pivot	0.236	6	M8 x 1	7.0	No	M19F and M26M	Large	Rotary Celeron	29	98	88	165
10020106	Ball Pivot	0.236	6	M8 x 1	7.0	Yes	M19F and M26M	Small	Rotary Celeron	29	98	88	165
10020106W	Ball Pivot	0.236	6	M8 x 1	7.0	Yes	M19F and M26M	Large	Rotary Celeron	29	98	88	165
10020110	Ball Pivot	0.236	6	M8 x 1	7.0	No	M19F and M26M	Small	Hard Chrome	29	98	88	165
10020110W	Ball Pivot	0.236	6	M8 x 1	7.0	No	M19F and M26M	Large	Hard Chrome	29	98	88	165
10020111	Ball Pivot	0.236	6	M8 x 1	7.0	Yes	M19F and M26M	Small	Hard Chrome	29	98	88	165
10020111W	Ball Pivot	0.236	6	M8 x 1	7.0	Yes	M19F and M26M	Large	Hard Chrome	29	98	88	165
10020115	Ball Pivot	0.236	6	M8 x 1	7.0	No	M30M	Small	Nylon	29	98	88	165
10020115W	Ball Pivot	0.236	6	M8 x 1	7.0	No	M30M	Large	Nylon	29	98	88	165
10020116	Ball Pivot	0.236	6	M8 x 1	7.0	Yes	M30M	Small	Nylon	29	98	88	165
10020116W	Ball Pivot	0.236	6	M8 x 1	7.0	Yes	M30M	Large	Nylon	29	98	88	165
10020155	Ball Pivot	0.236	6	1/4"-28	7.0	No	M19F and M26M	Small	Rotary Celeron	29	98	88	165
10020155W	Ball Pivot	0.236	6	1/4"-28	7.0	No	M19F and M26M	Large	Rotary Celeron	29	98	88	165
10020160	Ball Pivot	0.236	6	1/4"-28	7.0	No	M19F and M26M	Small	Hard Chrome	29	98	88	165
10020160W	Ball Pivot	0.236	6	1/4"-28	7.0	No	M19F and M26M	Large	Hard Chrome	29	98	88	165
10020165	Ball Pivot	0.236	6	1/4"-28	7.0	No	M19F and M26M	Small	Nylon	29	98	88	165
10020165W	Ball Pivot	0.236	6	1/4"-28	7.0	No	M19F and M26M	Large	Nylon	29	98	88	165
10020166	Ball Pivot	0.236	6	1/4"-28	7.0	Yes	M19F and M26M	Small	Nylon	29	98	88	165
10020166W	Ball Pivot	0.236	6	1/4"-28	7.0	Yes	M19F and M26M	Large	Nylon	29	98	88	165
10020200	Ball Pivot	0.236	6	M8 x 1	7.0	No	3 Nylon Pads	Small	None	29	98	88	165
10020200W	Ball Pivot	0.236	6	M8 x 1	7.0	No	3 Nylon Pads	Large	None	29	98	88	165
10020250	Ball Pivot	0.236	6	1/4"-28	7.0	No	3 Nylon Pads	Small	None	29	98	88	165
10020250W	Ball Pivot	0.236	6	1/4"-28	7.0	No	3 Nylon Pads	Large	None	29	98	88	165

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	22.0	No	None/Flat Base	Small	None	27	136	116	300
10040200W	JT1 with Adaptor	0.28	7	M6 x 1	22.0	No	None/Flat Base Narrow	Large	None	27	136	116	300
10040210	JT1 with Adaptor	0.28	7	M6 x 1	22.0	No	None/Flat Base Narrow	Small	Tripod + 3 Nylon Studs	27	136	116	300
10040210W	JT1 with Adaptor	0.28	7	M6 x 1	22.0	No	None/Flat Base Narrow	Large	None	27	136	116	300
10040250	JT1 with Adaptor	0.28	7	1/4"-28	22.0	No	None/Flat Base Narrow	Small	None	27	136	116	300
10040250W	JT1 with Adaptor	0.28	7	1/4"-28	22.0	No	None/Flat Base Narrow	Large	None	27	136	116	300
10040260	JT1 with Adaptor	0.28	7	1/4"-28	22.0	No	None	Small	Tripod + 3 Nylon Studs	27	136	116	300
10040260W	JT1 with Adaptor	0.28	7	1/4"-28	22.0	No	None/Flat Base Narrow	Large	Tripod + 3 Nylon Studs	27	136	116	300
10040405	JT1 with Adaptor	0.28	7	M6 x 1	22.0	No	Tapped M35 For Nose	Small	Nylon	27	136	116	300
10040405W	JT1 with Adaptor	0.28	7	M6 x 1	22.0	No	Tapped M35 For Nose	Large	Nylon	27	136	116	300
10040455	JT1 with Adaptor	0.28	7	1/4"-28	22.0	No	Tapped M35 For Nose	Small	Nylon	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
10040455W	JT1 with Adaptor	0.28	7	1/4"-28	22.0	No	Tapped M35 For Nose	Large	Nylon	27	136	116	300
10040505	JT1 with Adaptor	0.28	7	M6 x 1	22.0	No	None	Small	Tripod + 3 Nylon Studs	27	136	116	300
10040505W	JT1 with Adaptor	0.28	7	M6 x 1	22.0	No	None	Large	Tripod + 3 Nylon Studs	27	136	116	300
10040555W	JT1 with Adaptor	0.28	7	1/4"-28	22.0	No	None	Large	Tripod + 3 Nylon Studs	27	136	116	300
10040600W	JT1 with Adaptor	0.28	7	M6 x 1	22.0	No	None/Flat Base	Large	None	27	136	116	300
10040650	JT1 with Adaptor	0.28	7	1/4"-28	22.0	No	None/Flat Base	Small	None	27	136	116	300
10040650W	JT1 with Adaptor	0.28	7	1/4"-28	22.0	No	None/Flat Base	Large	None	27	136	116	300
10040720	3/8"-24	0.28	7	M6 x 1	22.0	No	None/Flat Base	Small	None	27	136	116	300
10040730	3/8"-24	0.28	7	M6 x 1	22.0	No	None	Small	Tripod + 3 Nylon Studs	27	136	116	300
10040740	3/8"-24	0.28	7	M6 x 1	22.0	No	Tapped M35 For Nose	Small	Nylon	27	136	116	300
10040750	3/8"-24	0.28	7	M6 x 1	22.0	No	None	Small	Tripod + 3 Nylon Studs	27	136	116	300
10040760	3/8"-24	0.28	7	M6 x 1	22.0	No	None/Flat Base	Small	None	27	136	116	300

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	Stroke	Vacuum	Mounting	Window	Nose Insert	Diameter Max.	Overall Length Max	Overall Length Min	Weight
		in	mm	Thread			Base Style	Size	Style				
10045050	JT1 with Adaptor	0.28	7	1/4"-28	38.0	No	None/Flat Base	Small	None	27	183	168	375
10045050W	JT1 with Adaptor	0.28	7	1/4"-28	38.0	No	None/Flat Base	Large	None	27	183	168	375
10045200W	JT1 with Adaptor	0.28	7	M6 x 1	38.0	No	None/Flat Base	Large	None	27	183	168	375
10045210	Straight Shank	0.28	7	M 6 X 1	38.0	No	Tripod + 3 Nylon Studs	Large		27	183	168	375
10045210W	Straight Shank	0.28	7	M 6 X 1	38.0	No	Tripod + 3 Nylon Studs	Small		27	183	168	375
10045405	JT1 with Adaptor	0.28	7	M6 x 1	38.0	No	Tapped M35 For Nose	Small	Nylon	27	183	168	375
10045405W	JT1 with Adaptor	0.28	7	M6 x 1	38.0	No	Tapped M35 For Nose	Large	Nylon	27	183	168	375
10045455	JT1 with Adaptor	0.28	7	1/4"-28	38.0	No	Tapped M35 For Nose	Small	Nylon	27	183	168	375
10045505	JT1 with Adaptor	0.28	7	M6 x 1	38.0	No	None/Flat Base	Small	Tripod + 3 Nylon Studs	27	183	168	375
10045555	JT1 with Adaptor	0.28	7	1/4"-28	38.0	No	None/Flat Base	Small	Tripod + 3 Nylon Studs	27	183	168	375
10045600W	JT1 with Adaptor	0.28	7	M6 x 1	38.0	No	None/Flat Base	Large	None	27	183	168	375
10045650	JT1 with Adaptor	0.28	7	1/4"-28	38.0	No	None/Flat Base	Small	None	27	183	168	375

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
10045650W	JT1 with Adaptor	0.28	7	1/4"-28	38.0	No	None/Flat Base	Large	None	27	183	168	375
10045720	3/8"-24			M6 x 1	38.0	No	None/Flat Base Narrow	Small	None	27	183	168	375
10045740	3/8"-24			M6 x 1	38.0	No	Tapped M35 For Nose	Small	Nylon	27	183	168	375
10045760	3/8"-24			M6 x 1	38.0	No	None/Flat Base	Small	None	27	183	168	375
10045760W	3/8"-24			M6 x 1	38.0	No	None/Flat Base	Large	None	27	183	168	375

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	Stroke	Vacuum	Mounting	Window	Diameter Max.	Overall Length Max	Overall Length Min	Weight
		in	mm									
10050000	JT1 with Adaptor	0.276	7	M10 x 1	58.0	No	Flat Bearing	Small	38	292	264	970
10050000W	JT1 with Adaptor	0.276	7	M10 x 1	58.0	No	Flat Bearing	Large	38	292	264	970
10050050	JT1 with Adaptor	0.276	7	7/16"-20 F	58.0	No	Flat Bearing	Small	38	292	264	970
10050050W	JT1 with Adaptor	0.276	7	7/16"-20 F	58.0	No	Flat Bearing	Large	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
- Reduced dimensions for tight access areas
- Detachable spindle adaptor provides alternative methods for use :
 - In combination with 3 jaw chuck.
 - Mounting direct onto machine spindle. 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").



Model	Shank		Cutter	Stroke	Vacuum	Mounting	Window	Diameter Max.	Overall Length Max	Overall Length Min	Weight
	in	mm	Thread	mm		Base Style	Size	mm	mm	mm	g
10030010	0.39	10	M10 x 1	14.0	No	None/Flat Base	Small	36	163	136	545
10030010W	0.39	10	M10 x 1	14.0	No	None/Flat Base	Large	36	163	136	545
10030105	0.39	10	M10 x 1	14.0	No	None/Flat Base	Small	36	163	136	545
10030105W	0.39	10	M10 x 1	14.0	No	None/Flat Base	Large	36	163	136	545

Cleco

RIVETING



Cleco | Tame the Line

SHOWN: COMPRESSION RIVETER

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

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



- Rivet set holder adjustment - stroke 0.12" allows the operator to use this compression riveter with different thicknesses without changing the rivet set.
- This light, sturdy, compact and fast compression riveter, has a maximum rivet capacity of 9/64" dia (3,6 mm) for aluminium rivets (depending on the rivet joint thickness).
- Equipped with a safety throttle lever.
- Smooth controlled throttle movement for fast and slow approach.
- 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.
- The operator can adjust exactly the position of the rivet by adjusting the snap holder (stroke 3 mm). This allows the operator to use the same rivet set for different thicknesses.

Model	Rivet Squeezer Set Shank Diameter	Capacity Aluminum Rivets	Maximum Force	Reach	Gap	Maximum Travel	Weight	Accessories	Length
		mm in	T Lb	mm in	mm in	mm in	Lb		in
60102010	Std diameter 5 mm	4.8mm 3/16in	2.2T 4850 lbs	50 mm 2.00 in	35 mm 1.38 in	34 mm 1.34 in	6.7 lb	Select Rivet Set from:- RB 400 for countersink rivets RB 401 for universal head type rivets RB 402 for special reduced universal head rivets	13.4 in
60102110	Std diameter 3/16"	4.8mm 3/16in	2.2T 4850 lbs	50 mm 2.00 in	35 mm 1.38 in	34 mm 1.34 in	6.7 lb	Select Rivet Set from:- RB 400 for countersink rivets RB 401 for universal head type rivets RB 402 for special reduced universal head rivets	13.4 in
60103010	Std diameter 5 mm	3.6mm 9/64in	1.4T 3090 lbs	50 mm 2.00 in	36 mm 1.41 in	35 mm 1.38 in	4.8 lb	Select Rivet Set from:- RB 400 for countersink rivets RB 401 for universal head type rivets RB 402 for special reduced universal head rivets	10.8 in
60103110	Std diameter 3/16"	3.6mm 9/64in	1.4T 3090 lbs	50 mm 2.00 in	36 mm 1.41 in	35 mm 1.38 in	4.8 lb	Select Rivet Set from:- RB 400 for countersink rivets RB 401 for universal head type rivets RB 402 for special reduced universal head rivets	10.8 in

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

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

- Rivet set holder adjustment - stroke 0.2" allows the operator to use this compression riveter with different thicknesses without changing the rivet set.
- This light, sturdy, compact and fast compression riveter, has a maximum rivet capacity of 3/16" dia for aluminium rivets (depending on the rivet joint thickness).
- Equipped with a safety throttle lever.
- Smooth controlled throttle movement for fast and slow approach.
- 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.
- The operator can adjust exactly the position of the rivet by adjusting the snap holder (stroke 5 mm). This allows the operator to use the same rivet set for different thicknesses.



Model	Rivet Squeezer Set Shank Diameter	Capacity Aluminum Rivets	Maximum Force	Reach	Gap	Maximum Travel	Weight	Accessories	Length
		mm in	T Lb	mm in	mm in	mm in	Lb		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	Select Rivet Set from:- RB 400 for countersink rivets RB 401 for universal head type rivets RB 402 for special reduced universal head rivets	14.4 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	Select Rivet Set from:- RB 400 for countersink rivets RB 401 for universal head type rivets RB 402 for special reduced universal head rivets	15.4 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	Select Rivet Set from:- RB 400 for countersink rivets RB 401 for universal head type rivets RB 402 for special reduced universal head rivets	14.4 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	Select Rivet Set from:- RB 400 for countersink rivets RB 401 for universal head type rivets RB 402 for special reduced universal head rivets	15.4 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	Select Rivet Set from:- RB 400 for countersink rivets RB 401 for universal head type rivets RB 402 for special reduced universal head rivets	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	Select Rivet Set from:- RB 400 for countersink rivets RB 401 for universal head type rivets RB 402 for special reduced universal head rivets	9.7 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	Select Rivet Set from:- RB 400 for countersink rivets RB 401 for universal head type rivets RB 402 for special reduced universal head rivets	16.8 in

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

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

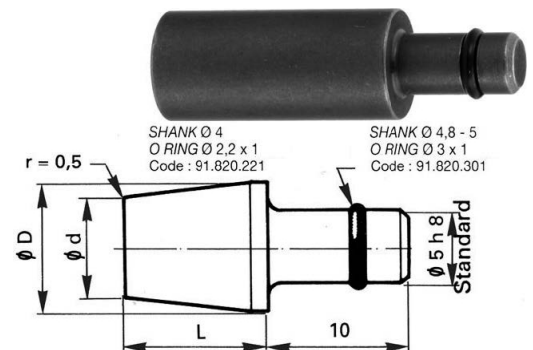
- The RB 46 pressure riveting assembly comprises a hydropneumatic generator, a hydraulic cylinder and a regulator for setting the force (max. 7 tonnes). It uses various standard and special yokes to form solid rivets made from various materials.
- It is easy to use and adjust, making it suitable for 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	Maximum Force	Accessories	Hose Length
	T Lb		m
60203006	7T 15400 lbs	Select Rivet Set from:- RB 400 for countersink rivets RB 401 for universal head type rivets RB 402 for special reduced universal head rivets	1.80, 5.9
60203016	7T 15400 lbs	Select Rivet Set from:- RB 400 for countersink rivets RB 401 for universal head type rivets RB 402 for special reduced universal head rivets	1.80, 5.9
60203106	7T 15400 lbs	Select Rivet Set from:- RB 400 for countersink rivets RB 401 for universal head type rivets RB 402 for special reduced universal head rivets	3, 9.8
60203116	7T 15400 lbs	Select Rivet Set from:- RB 400 for countersink rivets RB 401 for universal head type rivets RB 402 for special reduced universal head rivets	3, 9.8

RB400 - Rivet Set - Countersunk Rivets

- For Countersink Rivets

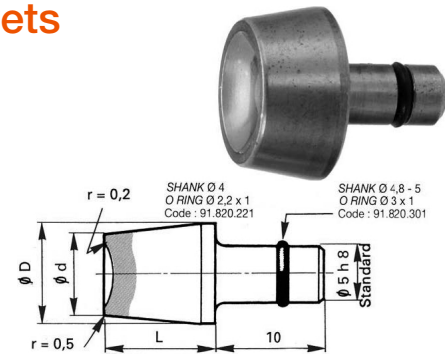


Model	Shank	Rivet Diameter	Length		Diameter Min		Diameter Max		Used On
			mm	in	mm	in	mm	in	
60701005	4h8	1.6 mm 2.4 mm 1/16 in 3/32 in	4	0.157	7	0.276	9	0.354	•RB 40-13-30 Hand Riveter
60701020	4h8	1.6 mm 2.4 mm 1/16 in 3/32 in	7	0.276	7	0.276	9	0.354	•RB 40-13-30 Hand Riveter
60701205	4h8	3.2 mm 3.6 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

Model	Shank	Rivet Diameter	Length		Diameter Min		Diameter Max		Used On
			mm	in	mm	in	mm	in	
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
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

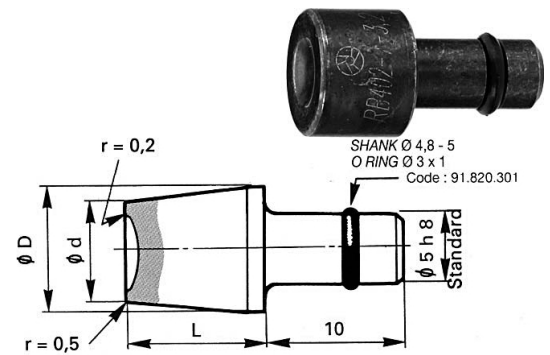


Model	Shank	Rivet Dia- meter	Length		Diameter Min		Diameter Max		Used On
			mm	in	mm	in	mm	in	
60711105	4h8	2.4 mm 3/32 in	4	0.157	7	0.276	9	0.354	•RB 40-13-30 Hand Riveter
60711120	4h8	2.4 mm 3/32 in	7	0.276	7	0.276	9	0.354	•RB 40-13-30 Hand Riveter
60711205	4h8	2.4 mm 3/32 in	4	0.157	9	0.354	9	0.354	•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

Model	Shank	Rivet Dia- meter	Length		Diameter Min		Diameter Max		Used On
			mm	in	mm	in	mm	in	
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
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 Type 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

Model	Shank	Rivet Dia- meter	Length		Diameter Min		Diameter Max		Used On
			mm	in	mm	in	mm	in	
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
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 from : 1/16" to 7/32" dia.

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



Thickness Gauge

0 to 1 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

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.



Model	Fastener Size
60004000	4 mm 0.1579 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
60004015	7.94 mm 0.313 in
60004016	6.35 mm 0.250 in
60004017	4.16 mm 0.1638 in

Cleco

MATERIAL REMOVAL



Cleco | Tame the Line

SHOWN: 12LF200 GRINDER

MATERIAL REMOVAL

CLECO MATERIAL REMOVAL TOOLS ARE COMPRISED OF:

The Cleco Dotco family of precision grinders whose reputation for durability, dependability and versatility is among the highest for fine finishing applications.

Cleco Dotco sanders and buffers that are built off the common platform of the precision grinders. Cleco MP series tools that are industrial grade medium duty tools suitable for a wide range of production and MRO applications. Cleco rough grinding tools meet the demanding requirements of industries including shipbuilding, pipe fabricating and welding applications. Since these types of applications typically require a high material removal rate, Cleco grinders typically incorporate higher horsepower motors.



CLECO DOTCO PENCIL AND DIE GRINDERS GRINDERS ARE DESIGNED WITH THE OPERATOR IN MIND.

They are small, lightweight and comfortable to use, without sacrificing durability. Plus, they incorporate elastomer coatings, and perfectly balanced moving parts to keep vibration to a minimum. This optimal combination of tool characteristics allows the operator to focus doing the best job possible, in the least amount of time.



HIGH PERFORMANCE FOR HIGH-VOLUME, HIGH-REPETITION TASKS.

Cleco's Dotco drills have long been the industry workhorse for daily high-volume, high-precision use in applications ranging from appliances to aerospace manufacturing. Be it aluminum, steel, titanium, composite, or wood, many industries require hand-drilled holes, and Cleco's Dotco tools offer some of the industry's most durable and reliable handheld drills, available in pistol, angle and in-line configurations.

THE CLECO DOTCO DIFFERENCE

Precision - Known for their performance, dependability and versatility, the Cleco Dotco brand is viewed as the premier line of surface-preparation tools in the industrial marketplace. With the lowest runout in the market, precision parts let the operators manufacture precision products.

Ergonomics - Cleco Dotco tools are designed so that their form follows their function. Simply put, these tools that are more comfortable for the operator to use, and work with operators - not against them.

Versatility - By using only a few motor types, a diverse line of Cleco Dotco products have been developed to handle a wide range of applications. The tools also have a high interchangeability of part making maintenance easier and more affordable.

Cleco Dotco 10-90 Series - Precision Grinder - Turbine

100,000 RPM 0.06 hp (0.044 kW)



- Requires no air line lubrication - High precision ball bearings for long life expectancy
- Two-stage turbine motor with roll throttle and front exhaust
- Achieves a superb finish with its high speed and precision spindle
- Light weight and durable steel housing
- Low vibration and quiet operation minimizes operator fatigue

Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Air Inlet Size
			r/min		Lb	in	in
10R9000-03	3mm	Front	100000	3/16" Carbide Burr, 3/16" Diamond Pin	0.441	5.4	1/8 in
10R9000-08	1/8 in	Front	100000	3/16" Carbide Burr, 3/16" Diamond Pin	0.441	5.4	1/8 in

CAUTION: Use dry air at 90 psi maximum: Do not lubricate turbine grinders. Lubrication will be detrimental to the operation and life of turbine tools.
Do not attach a quick-disconnect fitting directly to the tool.
Standard Equipment:
Applicable collet, collet wrenches, 7 ft./2.1 m air supply hose, replaceable cartridge hose filter.

Cleco Dotco 12-04 Series - Precision Pencil Grinder - Inline

60,000 RPM 0.1 hp (0.074 kW)



- Industrial bearing provides long life expectancy
- Designed for precision deburring and metal removal
- Compact and light weight composite housing
- Roll throttle equipped

Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Overhose	Weight	Length	Air Inlet Size
			r/min			Lb	in	in
12R0400-13	3mm	Rear	60000	1/4" Carbide Burr, 1/4" Diamond Pin	1 ft 0.3 m	0.22	5.8	1/8 in
12R0400-18	1/8 in	Rear	60000	1/4" Carbide Burr, 1/4" Diamond Pin	1 ft 0.3 m	0.22	5.8	1/8 in
12R0400-43	3mm	Rear	60000	1/4" Carbide Burr, 1/4" Diamond Pin	4 ft 1.2 m	0.22	5.8	1/8 in
12R0410-13	3mm	Rear	60000	1/4" Carbide Burr, 1/4" Diamond Pin	1 ft 0.3 m	0.22	5.8	1/8 in
12R0410-18	1/8 in	Rear	60000	1/4" Carbide Burr, 1/4" Diamond Pin	1 ft 0.3 m	0.22	5.8	1/8 in
12R0410-43	3mm	Rear	60000	1/4" Carbide Burr, 1/4" Diamond Pin	4 ft 1.2 m	0.22	5.8	1/8 in

Do not attach a quick-disconnect fitting directly to the tool.
Standard Equipment:
Applicable collet, collet wrenches, collet guard, 5 ft/1.5 m air supply hose, 1 ft./0.3 m overhose

Cleco Dotco 10-04 Series - Precision Grinder - Inline

60,000 RPM 0.1 hp (0.074 kW)

- Industrial bearing provides long life expectancy
- Designed for precision deburring and metal removal
- Compact and light aluminum weight housing
- Roll throttle equipped



Grinders

Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Overhose	Weight	Length	Air Inlet Size
			r/min			Lb	in	in
10R0400-13	3mm	Rear	60000	1/4" Carbide Burr, 1/4" Diamond Pin	1 ft 0.3 m	0.22	5.8	1/8 in
10R0400-18	1/8 in	Rear	60000	1/4" Carbide Burr, 1/4" Diamond Pin	1 ft 0.3 m	0.22	5.8	1/8 in
10R0401-13	3mm	Rear	60000	1/4" Carbide Burr, 1/4" Diamond Pin	1 ft 0.3 m	0.22	5.8	1/8 in
10R0401-43	3mm	Rear	60000	1/4" Carbide Burr, 1/4" Diamond Pin	4 ft 1.2 m	0.22	5.8	1/8 in

Cleco Dotco 12-03 Series - Precision Grinder - Gearless - Right Angle

80,000 RPM 0.1 hp (0.074 kW)

- Industrial bearing provides long life expectancy
- Designed for precision deburring and metal removal
- Compact and light weight composite housing
- Roll throttle equipped
- Includes over-hose



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Overhose	Weight	Length	Air Inlet Size
			r/min			Lb	in	in
12R0380-13	3mm	Rear	80000	1/4" Carbide Burr, 1/4" Diamond Pin	1 ft 0.3 m	0.3	5.5	1/8 in
12R0380-18	1/8 in	Rear	80000	1/4" Carbide Burr, 1/4" Diamond Pin	1 ft 0.3 m	0.22	5.5	1/8 in
12R0380-43	3mm	Rear	80000	1/4" Carbide Burr, 1/4" Diamond Pin	4 ft 1.2 m	0.22	5.5	1/8 in

Do not attach a quick-disconnect fitting directly to the tool.

Standard Equipment:

Applicable collet, collet wrenches, collet guard, 5 ft/1.5 m air supply hose, 1 ft/0.3 m overhose

Cleco Dotco 12-05 Series - Precision Grinder- with Collet Guard

40,000 RPM 0.2 hp (0.15 kW)



- Equipped with dial throttle
- Compact size for ultimate control - easy access to confined areas
- Ideal for die and mold work as well as deburring
- Comprehensive selection of speed available

Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Air Inlet Size
			r/min		Lb	in	in
12R0500-36	1/4 in	Front	40000	1/4" Carbide Burr, 7/8" Mounted Wheel	0.66	5.9	1/8 in

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

Minimum Hose I.D.: 3/16in / 4.8mm

Standard Equipment:

Applicable collet, collet wrenches, collet guard, 7 ft / 2.1m air supply hose

Cleco Dotco 12-10 Series - Die Grinder - 300 Series Collet

12,000 - 34,000 RPM 0.3 hp (0.22 kW)

- Durable and ergonomic composite housing - Ideal for die/mold and deburring
- Compact size for ultimate control - easy access to confined areas
- OH versions include 4' of Overhose for additional noise suppression
- Conversion kits available to add OH Overhose on rear exhaust tools for additional noise suppression
- LH = Left Hand Rotation
- Optional Extended Collet Guard - 01-1047 supplied separately



Grinders

Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Air Inlet Size
			r/min		Lb	in	in
12L1000-36	1/4 in	Front	30000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12L1000-36LH	1/4 in	Front	30000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12L1000-36M6	1/4 in 6mm	Front	30000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12L1001-36	1/4 in	Front	34000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12L1001-36M6	1/4 in 6mm	Front	34000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12L1003-36	1/4 in	Front	25000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12L1003-36LH	1/4 in	Front	25000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12L1028-36	1/4 in	Rear	20000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12L1028-36M6	1/4 in 6mm	Rear	20000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12L1045-36	1/4 in	Front	12000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12L1045-36M6	1/4 in 6mm	Front	12000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12L1046-36	1/4 in	Front	18000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12L1076-36OH	1/4 in	Front	18000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12L1080-36	1/4 in	Rear	30000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12L1080-36M6	1/4 in 6mm	Rear	30000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12L1080-36M6OH	1/4 in 6mm	Rear	30000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12L1080-36OH	1/4 in	Rear	30000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12L1081-36	1/4 in	Rear	34000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12L1081-36M6OH	1/4 in 6mm	Rear	34000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12L1081-36OH	1/4 in 6mm	Rear	34000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12L1082-36	1/4 in	Rear	25000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12L1082-36M6	1/4 in 6mm	Rear	25000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12L1082-36OH	1/4 in	Rear	25000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12S1008-36	1/4 in	Front	20000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
12S1085-36OH	1/4 in	Front	20000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in

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

Standard Equipment:

Applicable collet, collet wrenches

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

Cleco Dotco 10-10 Series - 200 & 300 Series Collet - Die Grinder

25,000 - 34,000 RPM 0.3 hp (0.22 kW)

- Durable aluminum housing - Ideal for die/mold and deburring work
- Compact size for ultimate control - easy access to confined areas
- Rear exhaust models are "OH" Overhose Ready for additional noise suppression
- 10L with Lock Off Lever 10N does not have a lever and is for mounting / remote start
- LH = Left Hand Rotation Version



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Air Inlet Size
			r/min		Lb		
10L1000-36	1/4 in	Front	30000	1/2" Carbide Burr, 1" Mounted Wheel	0.66	4.6	1/4 in
10L1000-3608	1/8 in	Front	30000	1/2" Carbide Burr, 1" Mounted Wheel	0.66	4.6	1/4 in
10L1000-36LH	1/4 in	Front	30000	1/2" Carbide Burr, 1" Mounted Wheel	0.66	4.6	1/4 in
10L1001-36	1/4 in	Front	34000	1/2" Carbide Burr, 1" Mounted Wheel	0.66	4.6	1/4 in
10L1001-3608	1/8 in	Front	34000	1/2" Carbide Burr, 1" Mounted Wheel	0.66	4.6	1/4 in
10L1003-36	1/4 in	Front	25000	1/2" Carbide Burr, 1" Mounted Wheel	0.66	4.6	1/4 in
10L1080-36	1/4 in	Rear	30000	1/2" Carbide Burr, 1" Mounted Wheel	0.66	4.6	1/8 in
10L1081-36	1/4 in	Rear	34000	1/2" Carbide Burr, 1" Mounted Wheel	0.66	4.6	1/8 in
10L1082-36	1/4 in	Rear	25000	1/2" Carbide Burr, 1" Mounted Wheel	0.66	4.6	1/8 in
10N1080-0124	3/8 in	Rear	30000	1/2" Carbide Burr, 1" Mounted Wheel	0.66	4.6	1/8 in
10N1081-36	1/4 in	Rear	34000	1/2" Carbide Burr, 1" Mounted Wheel	0.66	4.6	1/8 in

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

Standard Equipment:

Applicable collet, collet wrenches

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

Cleco Dotco 12-20 Series - Die Grinder - 200 Series Collet

12,000 - 25,000 RPM 0.6 hp (0.45 kW)



- Ergonomic composite housing
- Front and rear exhaust models available
- OH models include 4' Overhose for additional noise suppression
- Conversion kits available to add OH Overhose on rear exhaust tools for additional noise suppression
- LH = Left Hand Rotation Version
- Optional collet guard 01-2047PT supplied separately

Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Air Inlet Size
			r/min		Lb	in	in
12L2000-01	1/4 in	Front	25000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	6.9	1/4 in
12L2000-01LH	1/4 in	Front	25000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	6.9	1/4 in
12L2000-01M6	1/4 in 6mm	Front	25000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	6.9	1/4 in
12L2001-01	1/4 in	Front	20000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	6.9	1/4 in
12L2001-01LH	1/4 in	Front	20000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	6.9	1/4 in
12L2002-01	1/4 in	Front	18000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	6.9	1/4 in
12L2002-01LH	1/4 in	Front	18000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	6.9	1/4 in
12L2003-01	1/4 in	Front	12000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	6.9	1/4 in
12L2080-01	1/4 in	Rear	25000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	6.9	1/4 in
12L2080-01M6	1/4 in 6mm	Rear	25000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	6.9	1/4 in
12L2080-01OH	1/4 in	Rear	25000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	6.9	1/4 in
12L2081-01	1/4 in	Rear	20000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	6.9	1/4 in
12L2081-01M6	1/4 in 6mm	Rear	20000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	6.9	1/4 in
12L2081-01M6OH	1/4 in 6mm	Rear	20000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	6.9	1/4 in
12L2082-01	1/4 in	Rear	18000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	6.9	1/4 in

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

Standard Equipment:

Applicable collet, collet wrenches

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

Cleco Dotco 10-20 Series - 200 & 300 Series Collet - Die Grinder

18,000 - 25,000 RPM 0.6 hp (0.45 kW)

- Durable aluminum housing - Ideal for die/mold and deburring work
- Front and rear exhaust models available
- -01 200 Series Collet -36 300 Series Collet
- Rear exhaust models are "OH" Overhose Ready for additional noise suppression
- 10L with Lock Off Lever 10N does not have a lever and is for mounting / remote start
- LH - Left Hand Rotation



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Air Inlet Size
			r/min		Lb	in	in
10L2000-01	1/4 in	Front	25000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	5.8	1/4 in
10L2000-36	1/4 in	Front	25000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.1	6.4	1/4 in
10L2002-36	1/4 in	Front	18000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	6.6	1/4 in
10L2005-01	1/4 in	Front	20000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	5.7	1/4 in
10L2080-01	1/4 in	Rear	25000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	5.8	1/4 in
10L2080-01M6	1/4 in 6mm	Rear	25000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	5.8	1/4 in
10L2080-36	1/4 in	Rear	25000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	6.4	1/4 in
10L2081-01	1/4 in	Rear	20000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	5.8	1/4 in
10L2082-01	1/4 in	Rear	18000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	6.6	1/4 in
10N2080-01	1/4 in	Rear	25000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	5.8	1/4 in
10N2080-0124	3/8 in	Rear	25000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	5.8	1/4 in
10N2080-0124LH	3/8 in	Rear	25000	3/4" Carbide Burr, 1.5" Mounted Wheel	1.32	5.8	1/4 in

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

Standard Equipment:

Applicable collet, collet wrenches Minimum Hose I.D.: 5/16 in / 7.9 mm

Termination -01 = 200 Series collet

Termination -36 = 300 series collet

Cleco Dotco 12-25 Series - Die Grinder - 200 & 300 Series Collet

12,000 - 23,000 RPM 0.9 hp (0.67 kW)

- Ergonomic composite housing
- Optional over-hose available
- High power-to-weight ratio for optimal productivity
- OH models include 4' Overhose for additional noise suppression
- Conversion kits available to add OH Overhose on rear exhaust tools for additional noise suppression
- Optional collet guard 01-2047PT supplied separately



Grinders

Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Air Inlet Size
			r/min		Lb	in	in
12L2500-01	1/4 in	Front	23000	1" Carbide Burr, 1.5" Mounted Wheel	1.76	7.3	1/4 in
12L2500-01M6	1/4 in 6mm	Front	23000	1" Carbide Burr, 1.5" Mounted Wheel	1.76	7.3	1/4 in
12L2500-36	1/4 in	Front	23000	1" Carbide Burr, 1.5" Mounted Wheel	1.76	8	1/4 in
12L2502-01	1/4 in	Front	18000	1" Carbide Burr, 1.5" Mounted Wheel	1.76	7.3	1/4 in
12L2542-01	1/4 in	Rear	12000	1" Carbide Burr, 1.5" Mounted Wheel	1.76	7.4	1/4 in
12L2562-01	1/4 in	Front	12000	1" Carbide Burr, 1.5" Mounted Wheel	1.76	7.4	1/4 in
12L2562-01M6	1/4 in 6mm	Front	12000	1" Carbide Burr, 1.5" Mounted Wheel	1.76	7.4	1/4 in
12L2565-01	1/4 in	Front	15000	1" Carbide Burr, 1.5" Mounted Wheel	1.76	7.4	1/4 in
12L2568-01	1/4 in	Front	18000	1" Carbide Burr, 1.5" Mounted Wheel	1.76	7.4	1/4 in
12L2580-01	1/4 in	Rear	23000	1" Carbide Burr, 1.5" Mounted Wheel	1.76	7.3	1/4 in
12L2580-01M6OH	1/4 in 6mm	Rear	23000	1" Carbide Burr, 1.5" Mounted Wheel	1.76	7.3	1/4 in
12L2580-01OH	1/4 in	Rear	23000	1" Carbide Burr, 1.5" Mounted Wheel	1.76	7.3	1/4 in
12L2580-36	1/4 in	Rear	23000	1" Carbide Burr, 1.5" Mounted Wheel	1.76	8	1/4 in
12L2582-01	1/4 in	Rear	18000	1" Carbide Burr, 1.5" Mounted Wheel	1.76	7.3	1/4 in
12L2582-01M6	1/4 in 6mm	Rear	18000	1" Carbide Burr, 1.5" Mounted Wheel	1.76	7.3	1/4 in
12L2582-01OH	1/4 in	Rear	18000	1" Carbide Burr, 1.5" Mounted Wheel	1.76	7.3	1/4 in

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

Standard Equipment:

Applicable collet, collet wrenches

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

Termination -01 = 200 Series collet

Termination -36 = 300 series collet

Cleco Dotco 10-25 Series - 200 & 300 Series Collet - Die Grinder

12,000 - 23,000 RPM 0.9 hp (0.67 kW)

- Durable aluminum housing - Ideal for die/mold and deburring work
- Front and rear exhaust models available
- Rear exhaust models are "OH" Overhose Ready for additional noise suppression



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Air Inlet Size
			r/min		Lb	in	in
10L2500-01	1/4 in	Front	23000	1" Carbide Burr, 1.5" Mounted Wheel	1.32	0.63	1/4 in
10L2500-36	1/4 in	Front	23000	1" Carbide Burr, 1.5" Mounted Wheel	1.32	7.1	1/4 in
10L2502-01	1/4 in	Front	18000	1" Carbide Burr, 1.5" Mounted Wheel	1.32	0.63	1/4 in
10L2580-01	1/4 in	Rear	23000	1" Carbide Burr, 1.5" Mounted Wheel	1.32	0.63	1/4 in
10L2580-36	1/4 in	Rear	23000	1" Carbide Burr, 1.5" Mounted Wheel	1.54	7.9	1/4 in

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

Standard Equipment:

Applicable collet, collet wrenches

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

Termination -01 = 200 Series collet

Termination -36 = 300 series collet

Cleco Dotco 12-11 Series - Extended - Die Grinder

25,000 - 28,000 RPM 0.3 hp (0.22 kW)

- 3" | 75mm and 5" | 125mm extended housings available
- Conversion kits available to add OH Overhose on rear exhaust tools for additional noise suppression
- Multiple bearings for low vibration and balance



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Air Inlet Size
			r/min		Lb	in	in
12L1100-36	1/4 in	Front	28000	1/2" Carbide Burr, 1" Mounted Wheel	1.1	8.9	1/4 in
12L1101-36	1/4 in	Front	28000	1/2" Carbide Burr, 1" Mounted Wheel	1.32	10.9	1/4 in
12L1111-36	1/4 in	Front	25000	1/2" Carbide Burr, 1" Mounted Wheel	1.1	8.9	1/4 in
12L1112-36	1/4 in	Front	25000	1/2" Carbide Burr, 1" Mounted Wheel	1.32	10.9	1/4 in
12L1180-36	1/4 in	Rear	28000	1/2" Carbide Burr, 1" Mounted Wheel	1.1	8.9	1/4 in
12L1180-36OH	1/4 in	Rear	28000	1/2" Carbide Burr, 1" Mounted Wheel	1.1	8.9	1/4 in
12L1181-36	1/4 in	Rear	28000	1/2" Carbide Burr, 1" Mounted Wheel	1.32	10.9	1/4 in
12L1181-36OH	1/4 in	Rear	28000	1/2" Carbide Burr, 1" Mounted Wheel	1.32	10.9	1/4 in

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

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 1/4 in / 4.8 mm

Cleco Dotco 10-11 Series - Extended - Die Grinder - 300 Series Collet

25,000 - 28,000 RPM 0.3 hp (0.22 kW)

- 3" | 75mm & 5" | 125mm extended housing for hard to reach areas
- Balanced and comfortable to minimize fatigue
- Rear exhaust models are "OH" Overhose Ready for additional noise suppression



Grinders

Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Air Inlet Size
			r/min		Lb	in	
10L1100-36	1/4 in	Front	28000	1/2" Carbide Burr, 1" Mounted Wheel	1.1	7.6	1/4 in
10L1101-36	1/4 in	Front	28000	1/2" Carbide Burr, 1" Mounted Wheel	1.1	9.8	1/4 in
10L1101-36M6	1/4 in 6mm	Front	28000	1/2" Carbide Burr, 1" Mounted Wheel	1.1	9.8	1/4 in
10L1111-36	1/4 in	Front	25000	1/2" Carbide Burr, 1" Mounted Wheel	1.1	7.6	1/4 in
10L1112-36	1/4 in	Front	25000	1/2" Carbide Burr, 1" Mounted Wheel	1.1	9.8	1/4 in
10L1180-36	1/4 in	Rear	28000	1/2" Carbide Burr, 1" Mounted Wheel	1.1	8.4	1/8 in
10L1181-36	1/4 in	Rear	28000	1/2" Carbide Burr, 1" Mounted Wheel	1.1	9.8	1/8 in

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

Standard Equipment:

Applicable collet, collet wrenches

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

Cleco Dotco 12-26 Series - Extended - Die Grinder - 5" (127mm) Extension - 200 Series Collet

18,000 - 22,000 RPM 0.9 hp (0.67 kW)

- 5" | 125mm Extended housing for hard to reach areas
- Conversion kits available to add OH Overhose on rear exhaust tools for additional noise suppression
- Balanced and comfortable to minimize fatigue



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Air Inlet Size
			r/min		Lb	in	
12L2680-01	1/4 in	Rear	22000	1" Carbide Burr, 1.5" Mounted Wheel	2.87	12.9	1/4 in
12L2680-01OH	1/4 in	Rear	22000	1" Carbide Burr, 1.5" Mounted Wheel	2.87	12.9	1/4 in
12L2682-01	1/4 in	Rear	18000	1" Carbide Burr, 1.5" Mounted Wheel	2.87	12.9	1/4 in

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

Standard Equipment:

Applicable collet, collet wrenches

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

Cleco Dotco 12-26 Series - Die Grinder - Multiple Extension

18,000 RPM 0.9 hp (0.67 kW)

- Can be customized with multiple extensions for access to the most far-reaching areas
- Multiple industrial bearings provides optimal balance and power transfer
- Designed to work comfortably with the operator
- Available with 300 series 1/4" (A) 200 series 3/8" collet (B) and 3/8-24" external thread (C)



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Air Inlet Size
			r/min		Lb	in	in
12S2674-2C	3/8 in-24e	Rear	18000	1.25" Cone or Plug Wheel	4.19	23.5	1/4 in
12S2674-4C	3/8 in-24e	Rear	18000	1.25" Cone or Plug Wheel	6.6	38	1/4 in
12S2674-5C	3/8 in-24e	Rear	18000	1.25" Cone or Plug Wheel	7.7	45.3	1/4 in
12L2674-1A	1/4 in	Rear	18000	3/4" Carbide Bur, 1-1/2" Mounted Wheel	4.19	23.5	1/4 in
12L2674-2A	1/4 in	Rear	18000	3/4" Carbide Bur, 1-1/2" Mounted Wheel	4.19	23.5	1/4 in
12L2674-3A	1/4 in	Rear	18000	3/4" Carbide Burr, 1.5" Mounted Wheel	5.3	30.8	1/4 in
12L2674-5A	1/4 in	Rear	18000	3/4" Carbide Burr, 1.5" Mounted Wheel	7.7	45.3	1/4 in
12S2674-2AM6	1/4 in 6mm E300	Rear	18000	3/4" Carbide Burr, 1.5" Mounted Wheel	4.19	23.5	1/4 in
12S2674-4A	1/4 in	Rear	18000	3/4" Carbide Burr, 1.5" Mounted Wheel	6.6	38	1/4 in

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

Standard Equipment:

Applicable collet, collet wrenches

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

Termination:

A - 1/4" Collet

C - 3/8"-24 e

12L and 12S have the same throttle configuration

Cleco Dotco 12LF Series - Precision Right Angle Die Grinder - 36 300 Series Collet -32 1/4"-28

12,000 - 20,000 RPM 0.4 hp (0.29 kW)

- Composite housing
- 12000rpm or 20000rpm, front and rear exhaust models available
- Ergonomic and balanced design minimized operator fatigue
- OH version includes 4ft overhose for additional noise suppression
- Conversion kits available to add OH Overhose on rear exhaust tools for additional noise suppression



Grinders

Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Abrasive Capacity Sander	Spindle Size	Weight	Length	Head Height	Air Inlet Size
			r/min				Lb	in	in	in
12LF280-32	1/4 in-28i	Rear	12000	1/2" Carbide Burr, 1" Mounted Wheel	3" (75 mm) Sanding/Polishing disc	1/4"-28	1.1	6.6	2.70	1/4 in
12LF280-32OH	1/4 in-28i	Rear	12000	1/2" Carbide Burr, 1" Mounted Wheel	3" (75 mm) Sanding/Polishing disc	1/4"-28	1.1	6.6	2.70	1/4 in
12LF281-32	1/4 in-28i	Rear	20000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing disc	1/4"-28	1.1	6.6	2.70	1/4 in
12LF281-32OH	1/4 in-28i	Rear	20000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing disc	1/4"-28	1.1	6.6	2.70	1/4 in
12LF200-36	1/4 in	Front	12000	1/2" Carbide Burr, 1" Mounted Wheel	3" (75 mm) Sanding/Polishing disc		1.1	6.6	2.70	1/4 in
12LF200-36M6	1/4 in 6mm	Front	12000	1/2" Carbide Burr, 1" Mounted Wheel	3" (75 mm) Sanding/Polishing disc		1.1	6.6	2.70	1/4 in
12LF201-36	1/4 in	Front	20000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing disc		1.1	6.6	2.70	1/4 in
12LF201-36M6	1/4 in 6mm	Front	20000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing disc		1.1	6.6	2.70	1/4 in
12LF280-36	1/4 in	Rear	12000	1/2" Carbide Burr, 1" Mounted Wheel	3" (75 mm) Sanding/Polishing disc		1.1	6.6	2.70	1/4 in
12LF280-36M6	1/4 in 6mm	Rear	12000	1/2" Carbide Burr, 1" Mounted Wheel	3" (75 mm) Sanding/Polishing disc		1.1	6.6	2.70	1/4 in
12LF280-36M6OH	1/4 in 6mm	Rear	12000	1/2" Carbide Burr, 1" Mounted Wheel	3" (75 mm) Sanding/Polishing disc		1.1	6.6	2.70	1/4 in
12LF281-36	1/4 in	Rear	20000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing disc		1.1	6.6	2.70	1/4 in
12LF281-36M6	1/4 in 6mm	Rear	20000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing disc		1.1	6.6	2.70	1/4 in
12LF281-36M6OH	1/4 in 6mm	Rear	20000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing disc		1.1	6.6	2.70	1/4 in
12LF201-32	1/4 in-28i	Front	20000	2" (50 mm) Sanding/Polishing disc	2" (50 mm) Sanding/Polishing disc		1.1	6.6	2.70	1/4 in
12LF200-32	1/4 in-28i	Front	12000	3" (75 mm) Sanding/Polishing disc	3" (75 mm) Sanding/Polishing disc		1.1	6.6	2.70	1/4 in
12LF280-27	3/8 in-24e	Rear	12000	3" (75 mm) Sanding/Polishing disc	3" (75 mm) Sanding/Polishing disc		1.1	6.6	2.70	1/4 in

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

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 1/4 in / 4.8 mm

Cleco Dotco 10LF Series - Precision Right Angle Die Grinder - 36 300 Series Collet -32 1/4"-28

12,000 - 20,000 RPM 0.4 hp (0.29 kW)

- Metal housing
- 12000rpm or 20000rpm, front and rear exhaust models available
- Ergonomic and balanced design minimized operator fatigue
- OH Option Supplied with 4' Overhose for additional noise suppression
- Conversion kits available to add OH Overhose on rear exhaust tools for additional noise suppression



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Abrasive Capacity Sander	Weight	Length	Head Height	Air Inlet Size
			r/min			Lb	in	in	in
10LF200-36	1/4 in	Front	12000	1/2" Carbide Burr, 1" Mounted Wheel	3" (75 mm) Sanding/Polishing Disc	1.1	6.6	2.70	1/4 in
10LF200-36M6	1/4 in 6mm	Front	12000	1/2" Carbide Burr, 1" Mounted Wheel	3" (75 mm) Sanding/Polishing Disc	1.1	6.6	2.70	1/4 in
10LF201-36	1/4 in	Front	20000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing Disc	1.1	6.6	2.70	1/4 in
10LF201-36M6	1/4 in 6mm	Front	20000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing Disc	1.1	6.6	2.70	1/4 in
10LF280-36	1/4 in	Rear	12000	1/2" Carbide Burr, 1" Mounted Wheel	3" (75 mm) Sanding/Polishing Disc	1.1	6.6	2.70	1/4 in
10LF280-36M6	1/4 in 6mm	Rear	12000	1/2" Carbide Burr, 1" Mounted Wheel	3" (75 mm) Sanding/Polishing Disc	1.1	6.6	2.70	1/4 in
10LF281-36	1/4 in	Rear	20000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing Disc	1.1	6.6	2.70	1/4 in
10LF281-36OH	1/4 in	Rear	20000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing Disc	1.1	6.6	2.70	1/4 in
10LF201-32	1/4 in-28i	Front	20000	2" (50 mm) Sanding/Polishing Disc	2" (50 mm) Sanding/Polishing Disc	1.1	6.6	2.90	1/4 in
10LF281-32	1/4 in-28i	Rear	20000	2" (50 mm) Sanding/Polishing Disc	2" (50 mm) Sanding/Polishing Disc	1.1	6.6	2.90	1/4 in
10LF200-32	1/4 in-28i	Front	12000	3" (75 mm) Sanding/Polishing Dis	3" (75 mm) Sanding/Polishing Disc	1.1	6.6	2.90	1/4 in
10LF280-32	1/4 in-28i	Rear	12000	3" (75 mm) Sanding/Polishing Dis	3" (75 mm) Sanding/Polishing Disc	1.1	6.6	2.90	1/4 in

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

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 1/4 in / 4.8 mm

Cleco Dotco 12-27 and 10-27 Series Extended Angle Head

12000-14500rpm

- 12L Composite housing 10L Aluminum Housing
- 12L22 0.6hp / .45kW 12L27 and 10L27 0.9hp (.67kW)
- -28 3/8"-24E Type 1 4" Guard, -30 1/4"-20int -32 1/4"-28int, -36 300 Series Collet shown in picture, -45 Universal Collet, -84 4" Type 27
- Standard 3" | 75mm extension
- Robust design perfectly suited for industrial applications
- -28 supplied with 4" guard for Type 1 cut off wheel



Grinders

Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Abrasive Capacity Sander	Weight	Length	Head Height	Air Inlet Size
			r/min			Lb	in	in	in
10L2778-36	1/4 in	Rear	14500	3/4" Carbide Burr, 1.25" Mounted Wheel	4" (100mm) Sanding/Polishing Disc	2.4	10.5	2.90	1/4 in
10L2778-45	1/4 in	Rear	14500	3/4" Carbide Burr, 1.25" Mounted Wheel	4" (100mm) Sanding/Polishing Disc	2.4	10.5	2.90	1/4 in
12L2277-36	1/4 in	Rear	12000	3/4" Carbide Burr, 1.25" Mounted Wheel	4" (100mm) Sanding/Polishing Disc	2.2	10	2.70	1/4 in
12L2278-36	1/4 in	Rear	14500	3/4" Carbide Burr, 1.25" Mounted Wheel	4" (100mm) Sanding/Polishing Disc	2.2	10	2.70	1/4 in
12L2776-36	1/4 in	Rear	13500	3/4" Carbide Burr, 1.25" Mounted Wheel	4" (100mm) Sanding/Polishing Disc	2.2	10.5	2.90	1/4 in
12L2777-32	1/4 in-28i	Rear	12000	3/4" Carbide Burr, 1.25" Mounted Wheel	4" (100mm) Sanding/Polishing Disc	2.2	10.5	2.90	1/4 in
12L2777-36	1/4 in	Rear	12000	3/4" Carbide Burr, 1.25" Mounted Wheel	4" (100mm) Sanding/Polishing Disc	2.2	10.5	2.90	1/4 in
12L2777-45	1/4 in	Rear	12000	3/4" Carbide Burr, 1.25" Mounted Wheel	4" (100mm) Sanding/Polishing Disc	2.2	10.5	2.90	1/4 in
12L2778-36	1/4 in	Rear	14500	3/4" Carbide Burr, 1.25" Mounted Wheel	4" (100mm) Sanding/Polishing Disc	2.2	10.5	2.90	1/4 in
12L2778-45	1/4 in	Rear	14500	3/4" Carbide Burr, 1.25" Mounted Wheel		2.2	10.5	2.90	1/4 in
12L2776-30	1/4 in-20i	Rear	13500	4" Sanding Disc		2.2	10.5	2.90	1/4 in
12L2776-32	1/4 in-28i	Rear	13500	4" Sanding Disc		2.2	10.5	2.90	1/4 in
12L2777-28OH	3/8 in-24e	Rear	12000	4" Type 1 Cut-Off Wheel		3.3	10.9	2.90	1/4 in
12L2778-28	3/8 in-24e	Rear	14500	4" Type 1 Cut-Off Wheel		3.3	10.9	2.90	1/4 in
12L2778-84	3/8 in-24e	Rear	14500	4" Type 27 Wheel		2.87	10.5	2.30	1/4 in

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

Standard Equipment:

Applicable collet, collet wrenches

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

Cleco Dotco 12-27 Series - Standard Duty Head Right Angle Grinder

14,500 RPM 0.9 hp (0.67 kW)

- 12L Ergonomic composite housing, 10L Aluminium Housing
- Durable and low profile angle head
- Low vibration and high output motor provides superior productivity
- -36 1/4" Collet No Guard
- -28 3/6"-24ext Type 1 with 4" Guard



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Abrasive Capacity Sander	Weight	Length	Head Height	Air Inlet Size
			r/min			Lb			
12L2718-36	1/4 in	Rear	18000	3/4" Carbide Burr, 1.25" Mounted Wheel	4" (100mm) Sanding/ Polishing Disc	1.98	8	2.90	1/4 in
12L2714-28	3/8 in-24e	Rear	14500	4" (100mm) Type 1		3.31	8	2.90	1/4 in
12L2718-28	3/8 in-24e	Rear	18000	4" (100mm) Type 1		3.31	8	2.90	1/4 in

All tools performance rated @ 90 psi / 620 kPa air pressure.
Minimum Hose I.D.: 1/2 in / 12.7 mm
Standard Equipment:
Wheel guard and flange wrench

Cleco Dotco 12-13 Series - Die Grinder - Right Angle - Gearless - 300 Series Collet, 1/4"-20E

20,000 - 30,000 RPM 0.3 hp (0.22 kW)

- Composite housing
- Wide array of speeds offered; front and rear exhaust models available
- Suitable for a wide range of finishing and deburring applications
- -36 1/4" Collet, -30 1/4"-20 Ext



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Abrasive Capacity Sander	Weight	Length	Head Height	Air Inlet Size
			r/min			Lb			
12L1382-30		Rear	20000		2" (50 mm) Sanding/Polishing Disc	1.1	7.1	3.70	1/4 in
12L1300-36	1/4 in	Front	30000	1/2" Carbide Burr, 1" Mounted Wheel	1" (25mm) Sanding/Polishing Disc	1.1	7.1	3.70	1/4 in
12L1301-36	1/4 in	Front	25000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing Disc	1.1	7.1	3.70	1/4 in
12L1302-36	1/4 in	Front	20000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing Disc	1.1	7.1	3.70	1/4 in
12L1380-36	1/4 in	Rear	30000	1/2" Carbide Burr, 1" Mounted Wheel	1" (25mm) Sanding/Polishing Disc	1.1	7.1	3.70	1/4 in
12L1381-36	1/4 in	Rear	25000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing Disc	1.1	7.1	3.70	1/4 in
12L1382-36	1/4 in	Rear	20000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing Disc	1.1	7.1	3.70	1/4 in

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

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 1/4 in / 4.8 mm

Cleco Dotco 12-22 Series - Die Grinder - Right Angle - Heavy Duty Head - 200 Series Collet

9,000 - 11,000 RPM 0.6 hp (0.45 kW)

- Composite housing
- Ergonomic and balanced design minimized operator fatigue
- Wide array of speeds; front, side, and rear exhaust models available



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Head Height	Air Inlet Size
			r/min		Lb	in	in	in
12L2251-01	1/4 in	Side	9000	3/4" Carbide Burr, 2" Mounted Wheel	3.31	9.3	3.90	1/4 in
12L2252-01	1/4 in	Side	11000	3/4" Carbide Burr, 2" Mounted Wheel	3.31	9.3	3.90	1/4 in

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

Standard Equipment:

Applicable collet, collet wrenches

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

Cleco Dotco 12-27 Series - Die Grinder - Heavy Duty Head - 200 Series Collet

6,000 - 11,000 RPM 0.9 hp (0.67 kW)

- 12L Composite housing
- Front exhaust models
- Robust design perfectly suited for industrial applications



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Head Height	Air Inlet Size
			r/min		Lb	in	in	in
12L2750-01	1/4 in	Side	6000	1" Carbide Burr, 1" Mounted Wheel	3.31	9.8	3.90	1/4 in
12L2752-01	1/4 in	Side	11000	3/4" Carbide Burr, 2" Mounted Wheel	3.31	9.8	3.90	1/4 in

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

Standard Equipment:

Applicable collet, collet wrenches

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

Cleco 216 Series - Inline - 200 Series Collet

25,000 RPM 0.7 hp (0.45 kW)

- Designed for demands of heavy industries, such as shipbuilding, foundries, metal fabrication, etc.
- Rugged advanced alloy housing
- Front and side exhaust models available



Grinders

Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Air Inlet Size
			r/min		Lb	in	in
216GLFB-250-C4	1/4 in	Front	25000	3/4" Carbide Burr	1.32	0.63	1/4 in
216GLSB-250-C4	1/4 in	Side	25000	3/4" Carbide Burr	1.32	0.63	1/4 in

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

Standard Equipment:

Applicable collet, collet wrenches

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

Cleco 236 Series - Inline - 200 Series Collet

20,000 - 25,000 0.8hp (0.6kW)

- Designed for severe demands of heavy industries, such as shipbuilding, foundries, metal fabrication, etc.
- Advanced alloy housing
- Front, side, and rear exhaust models available



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Air Inlet Size
			r/min		Lb	in	in
236GLR-200-C4	1/4 in	Rear	20000	1" (25mm) Carbide Burr, 2" (50mm) Mounted Wheel	1.32	7.4	1/4 in
236GLF-250-C4	1/4 in	Front	25000	1" Carbide Burr	1.32	6.8	1/4 in
236GLS-240-C4	1/4 in	Side	24000	1" Carbide Burr	1.32	6.8	1/4 in

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

Standard Equipment:

Applicable collet, collet wrenches

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

Cleco 216 Series - Right Angle Heavy Duty Head - Type 27

11,500 RPM 0.6 hp (0.4 kW)

- Rugged and durable aluminum housing
- Robust and long lasting angle head for the most demanding applications
- Powerful motor stays durable in the harshest environments



Model	Exhaust	Free Speed	Abrasive Capacity Grinder	Spindle Size	Weight	Length	Head Height	Air Inlet Size
		r/min			Lb	in	in	in
216GLF-115A-D3T45	Front	11500	4.5" (115mm) Type 27	3/8" - 24 e	2.65	7.1	3.20	1/4 in

All tools performance rated @ 90 psi / 620 kPa air pressure.
Minimum Hose I.D.: 5/16 in / 7.9 mm
Standard Equipment:
Applicable collet, collet wrenches

Cleco 216 Series - Right Angle Extended - Type 1 and Type 27 DCW

13,500 -16,500 RPM 0.6 hp (0.4 kW)

- Rugged and durable aluminum housing
- Extended head for better reach and accessibility
- Lock-off lever for safe operation
- -D3T4 4" 3/8"-24 Type 27 DCW
- -W3T4 4" 3/8"-24 Type 1 Cut Off Wheel



Model	Exhaust	Free Speed	Abrasive Capacity Grinder	Spindle Size	Weight	Length	Head Height	Air Inlet Size
		r/min			Lb	in	in	in
216GLSB-135A-W3T4	Side	13500	4" (100mm) Type 1	3/8" - 24 e	2.43	9.1	2.20	1/4 in
216GLSB-135A-D3T4	Side	13500	4" (100mm) Type 27	3/8" - 24 e	2.43	9.1	2.20	1/4 in

All tools performance rated @ 90 psi / 620 kPa air pressure.
Minimum Hose I.D.: 5/16 in / 7.9 mm
Standard Equipment:
Wheel guard, wheel adapter, spindle wrench, Operating instructions & service manual

12-22 Series - 300 Series Collet

12,000 - 18,000 RPM 0.6 hp (0.45 kW)

- Ergonomic composite housing
- Heavy duty low profile head for greater accessibility
- High output motor in a lightweight package
- 3" | 75mm Extended head available



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Abrasive Capacity Sander	Weight	Length	Head Height	Air Inlet Size
			r/min			Lb	in	in	in
12L2218-36*	1/4 in	Rear	18000	1/2" Carbide Burr 1" Mounted Wheel	3" (50mm) Sanding/ Polishing Disc	1.76	7.5	2.70	1/4 in
12L2278-36	1/4 in	Rear	14500	3/4" Carbide Burr, 1.25" Mounted Wheel	4" (100mm) Sanding/ Polishing Disc	2.2	10	2.70	1/4 in
12L2277-36	1/4 in	Rear	12000	3/4" Carbide Burr, 1.25" Mounted Wheel	4" (100mm) Sanding/ Polishing Disc	2.2	10	2.70	1/4 in

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

Standard Equipment:

Applicable collet, collet wrenches

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

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

Standard Equipment: Applicable collet, collet wrenches

Cleco 216 Series - Right Angle Heavy Duty Head - 200 Series Collet

11,500 RPM 0.7 hp (0.4 kW)

- Rugged and durable aluminum housing
- Designed for heavy industries such as shipbuilding, foundries, metal fabrication, etc.
- Robust angle head design provides excellent durability



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Head Height	Air Inlet Size
			r/min		Lb	in	in	in
216GLF-115A-C4	1/4 in	Front	11500	1" Carbide Burr	2.43	7.1	2.20	1/4 in
216GLFC-165A-C4	1/4 in	Rear	16500	3/4" Carbide Burr	1.76	9.1	2.20	1/4 in

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

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 1/4 in / 4.8 mm

Cleco 236 Series - Right Angle Heavy Duty Head - 200 Series Collet

11,500 - 16,500 RPM 0.8 hp (0.6 kW)

- Rugged and durable aluminum housing
- Designed for heavy industries such as shipbuilding, foundries, metal fabrication, etc.
- Robust angle head design provides excellent durability



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Head Height	Air Inlet Size
			r/min		Lb	in	in	in
236GLSC-115A-C4	1/4 in	Side	11500	1" (25mm) Carbide Burr, 2" (50mm) Mounted Wheel	1.98	9.6	2.20	1/4 in

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

Standard Equipment:

Applicable collet, collet wrenches

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

Cleco 2260 Series - Right Angle Grinder

8,400 RPM 2.2 hp (1.6 kW)

- High performance 2.2HP motor, Governed at 8,000 rpm
- Available with 6", 7" guard options
- Reversible safety lever throttle
- Dual auxiliary handle positions
- Maximum material removal for a right angle grinder



Model	Exhaust	Free Speed	Abrasive Capacity Grinder	Spindle Size	Weight	Length	Head Height	Air Inlet Size
		r/min			Lb	in	in	in
2260AGL-06	Side	8400	6" (150mm), Type 27/42	5/8" - 11 e	7.3	12.1	2.90	1/2 in
2260AGL-07	Side	8400	7" (180mm), Type 27/42	5/8" - 11 e	7.3	12.1	2.90	1/2 in

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

Minimum Hose I.D.: 3/4 in / 19 mm

Standard Equipment:

Wheel guard, adapters, spindle wrenches, operating instructions & service manuals

Cleco 236 Series - Right Angle Heavy Duty Head Type 1 and Type 27

- Rugged and durable aluminum housing
- Heavy duty and extended head models available
- Designed for heavy duty material removal applications
- -D3T4 3/8"-24E Type 27DCW 4" Guard , -D3T45 3/8"-24E Type 27DCW 4.5" Guard, -D3T5 3/8"-24E Type 27DCW 5" Guard
- -W3T4 3/8"-24 Type 1 4" Guard



Model	Exhaust	Free Speed	Abrasive Capacity Grinder	Spindle Size	Weight	Length	Head Height	Air Inlet Size
		r/min			Lb	in	in	in
236GLR-115A-D3T45	Rear	11500	4.5" (115mm) Type 27	3/8" - 24 e	2.43	8.3	3.20	1/4 in
236GLR-115A-D5T45	Rear	11500	4.5" (115mm) Type 27	5/8" - 11 e	2.43	8.3	3.20	1/4 in
236GLR-115A-W3T4	Rear	11500	4" (100mm) Type 1	3/8" - 24 e	2.43	8.3	3.20	1/4 in
236GLR-115A-D3T4	Rear	11500	4" (100mm) Type 27	3/8" - 24 e	2.43	8.3	3.20	1/4 in
236GLR-115A-D3T5	Rear	11500	5" (150mm) Type 27	3/8" - 24 e	2.43	8.3	3.20	1/4 in

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

Minimum Hose I.D.: 1/2 in / 12.7 mm

Standard Equipment:

Wheel guard and flange wrench

Cleco C31 Right Angle Grinder

12,000 - 13500 RPM 1.7 hp (1.25 kW)



- High-performance 1.7Hp motor delivers maximum power
- Quick change spindle lock for fast and easy abrasive changes
- Quieter operation with rear exhaust overhose standard
- Ergonomic, anti-vibration handle for increased comfort and less operator fatigue
- Dual-layer, high-impact composite housing for extreme durability
- Versatile 270° adjustable guard for easy access to tight spaces

Model	Exhaust	Free Speed	Abrasive Capacity Grinder	Spindle Size	Weight	Length	Head Height	Air Inlet Size
		r/min			Lb	in	in	in
C3120A45-58OH	Rear	12000	4.5" Type 1 and Type 27	5/8" - 11	3.98	8.95	3.03	3/8 in
C3120A45-M14OH	Rear	12000	4.5" Type 1 and Type 27	M14 x 2	3.98	8.95	3.03	3/8 in
C3120A5-58OH	Rear	12000	5" Type 1 and Type 27	5/8" - 11	4.05	8.95	3.03	3/8 in
C3120A5-M14OH	Rear	12000	5" Type 1 and Type 27	M14 x 2	4.05	8.95	3.03	3/8 in
C3135A4-38OH	Rear	13500	4" Type 1 and Type 27	3/8" - 24	3.78	8.95	3.03	3/8 in

Cleco 236 Series - Right Angle Extended Head - Type 1 and Type 27

13,500 - RPM 0.8 hp (0.6kW)



- Rugged and durable aluminum housing
- Heavy duty and extended head models available
- Designed for heavy duty material removal applications
- -D3T4 3/8"-24E Type 27DCW 4" Guard , -D3T45 3/8"-24E Type 27DCW 4.5" Guard
- -W3T4 3/8"-24 Type 1 4" Guard

Model	Exhaust	Free Speed	Abrasive Capacity Grinder	Spindle Size	Weight	Length	Head Height	Air Inlet Size
		r/min			Lb	in	in	in
236GLFB-135A-W3T4	Front	13500	4" (100mm) Type 1	3/8" - 24 e	1.98	9.6		1/4 in
236GLRB-135A-W3T4	Rear	13500	4" (100mm) Type 1	3/8" - 24 e	1.98	7.6		1/4 in
236GLSB-135A-W3T4	Side	13500	4" (100mm) Type 1	3/8" - 24 e	1.98	9.6		1/4 in
236GLFB-135A-D3T4	Front	13500	4" (100mm) Type 27	3/8" - 24 e	1.98	9.6	2.20	1/4 in
236GLRB-135A-D3T4	Rear	13500	4" (100mm) Type 27	3/8" - 24 e	1.98	7.6	2.20	1/4 in

All tools performance rated @ 90psi / 620 kPa air pressure.
Minimum Hose I.D.: 1/2in / 12.7mm
Standard Equipment: Wheel guard and flange wrench

236 Series - Extended - 200 Series Collet

18,000 - 24,000 RPM 0.9 hp (0.6 kW)

- Rugged all aluminum housing
- Heavy industrial use for shipyards, foundries, metal fabrication, rail yards, etc.
- 5" Extended housing for hard to reach areas
- Offers higher horsepower and torque levels than similar competitive tools
- C4 = 200 Series Collet, P3T 3/8"-24



Grinders

Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Air Inlet Size
			r/min		Lb	in	in
236GEL-240-C4	1/4 in	Side	24000	1" Carbide Burr, 2" Mounted Wheel	2.2	12.4	1/4 in

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

Standard Equipment:

Applicable collet, collet wrenches

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

Cleco 25 Series - Grinder - Inline Extended

14,000 - 18,000 RPM 1.4 hp (1.3 kW)

- Rugged and durable aluminum housing
- Governor speed control maintains RPM under load
- Safety- lock throttle lever prevents accidental start up



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Spindle Size	Weight	Length	Air Inlet Size
			r/min			Lb	in	in
25GELC-180-C4	1/4 in	Side	18000	1.25" Carbide Burr, 2" Mounted Wheel		3.09	14.5	3/8 in
25GELC-120-C4	1/4 in	Rear	12000	1.25" Carbide Burr, 2" Mtd. Wheel		3.09	14.5	3/8 in
25GELC-120-W3T25	3/8 in-24e	Side	12000	2.5" (63mm) Type 1	3/8" - 24 e	3.31	14.4	3/8 in
25GELC-180-P3T	3/8 in-24e	Side	18000	2" (50mm) Cone or Plug Wheel	3/8" - 24 e	3.09	14.5	3/8 in
25GELC-180-P5T	5/8 in-11e	Side	18000	2" (50mm) Cone or Plug Wheel	5/8" - 11 e	3.31	14.9	3/8 in
25GELC-120-W3T3	3/8 in-24e	Side	12000	3" (75mm) Type 1	3/8" - 24 e	3.75	14.4	3/8 in
25GELC-180-W3T3	3/8 in-24e	Side	18000	3" (75mm) Type 1	3/8" - 24 e	3.75	14.9	3/8 in
25GELC-120-W3T4	3/8 in-24e	Side	12000	4" (100mm) Type 1	3/8" - 24 e	3.75	14.4	3/8 in

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

Minimum Hose I.D.: 3/8 in / 9.5 mm

Standard Equipment:

Wheel guard, flange wrench, Operating instructions & service manual

Cleco 3060 Series - 3hp Vertical Grinder

6,000 RPM 3.0 hp (2.3 kW)

- Powerful, governed motor
- Ideally suited for the most rugged environments
- Maximum material removal in an ergonomic package



Model	Exhaust	Free Speed	Abrasive Capacity Grinder	Spindle Size	Weight	Air Inlet Size
		r/min			Lb	in
3060AVL-06	Side	6000	6" (150mm) Type 11	5/8" - 11 e	10.1	1/2 in
3060AVL-07	Side	6000	7" (180mm) Type 27	5/8" - 11 e	9.7	1/2 in
3060AVL-09	Side	6000	9" (230mm) Type 27	5/8" - 11 e	10.4	1/2 in

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

Minimum Hose I.D.: 3/4 in / 19 mm

Standard Equipment:

Wheel guard, adapters, spindle wrenches, operating instructions & service manuals

Cleco 4060 Series - 4hp Vertical Grinder

6,000 RPM 4.0 hp (3.1 kW)

- Maximum material removal in any application
- Powerful motor delivering ultimate torque



Model	Exhaust	Free Speed	Abrasive Capacity Grinder	Spindle Size	Weight	Air Inlet Size
		r/min			Lb	in
4060AVL-06	Side	6000	6" (150mm) Type 11	5/8" - 11 e	11.7	1/2 in
4060AVL-07	Side	6000	7" (180mm) Type 27	5/8" - 11 e	11	1/2 in
4060AVL-09	Side	6000	9" (230mm) Type 27	5/8" - 11 e	11.9	1/2 in

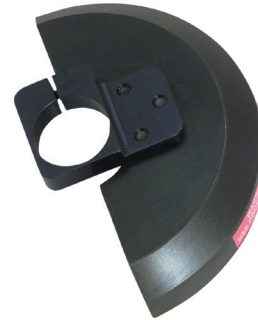
All tools performance rated @ 90 psi / 620 kPa air pressure.

Minimum Hose I.D.: 3/4 in / 19 mm

Standard Equipment:

Wheel guard, adapters, spindle wrenches, operating instructions & service manuals

Cleco Wheel Guards

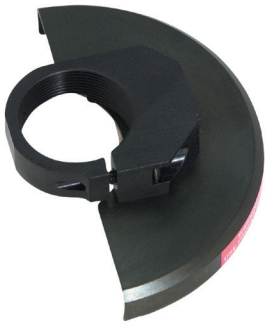


Model	Description	Tool Series	Size
202227	Type 27 Wheel	216RA, 236RA	4" 100mm
202245	Type 1 Wheel	236,25	4" 100mm
202278	Type 1 Wheel	236, 25	3" 75mm
203142	Type 27 Wheel	216RA, 236RA	5" 125mm
203382	Type 27 Wheel	236V	4" 100mm
207750PT	Type 6 & 11 (Cup) Wheel	3060AVL, 4060AVL	6" 150mm
207751PT	Type 27 Wheel	3060AVL, 4060AVL	7" 180mm
207752PT	Type 27 Wheel	3060AVL, 4060AVL	9" 230mm
208011PT	Type 27 Wheel	2260AGL	6" 150mm
208012PT	Type 27 Wheel	2260AGL	7" 180mm
849760	Type 28 Wheel	25V	7" 180mm
861893	Type 6 & 11 (Cup) Wheel		6" 150mm
865986	Type 28 Wheel	25RA	7" 180mm
865993	Type 1 Wheel	500BH	6" 150mm
881608	Type 1 Wheel	500BH	4" 100mm
889208	Type 27 Wheel	216RA, 236RA	4" 100mm
T50-1000430	Type 1 Wheel, Type 27 Wheel	C3 Grinder	4" 100mm
T50-1000455	Type 1 Wheel, Type 27 Wheel	C3 Grinder	4 1/2" 100mm
T50-1000467	Type 1 Wheel, Type 27 Wheel	C3 Grinder	5" 125mm

Wheel Guards Cleco Dotco

For Use with Cleco Dotco Grinders Only

- For Type 1 and Type 27 abrasives and Cup Wheels only
- Available in various sizes
- Meets all safety standards



Model	Abrasive Capacity Grinder	Tool Series
14-1258	3" x 3/16"	12-22, 12-27 (LP)
14-1259	4" x 3/16"	12-22, 12-27 (LP)
14-2123	7"	12-42
14-2562	4"	12-22, 12-27
14-2594	4"	12-22, 12-27 (LP)
14-2623	4" x 3/16"	12-25
14-2624	3" x 3/16"	12-20, 12-25
14-2672	4.5"	12-27
14-4074	4" x 1"	12-41

10/12-04 Series HG Collets - Cleco Dotco

Cleco Dotco Pencil Grinder collets

- Used on 10 and 12 series Pencil grinders
- Fit various Burr sizes
- Available in Metric and Imperial sizes

Model	Tool Termination	Tool Series	Collet Size	Length
			in	in mm
100	-08 or -18	10-04, 10-90, 12-04	1/8 in	321 mm
102	-06 or -16	10-04, 10-90	3/32 in	
103	-04 or -14	10-04, 10-90	1/16 in	
146	-00 or -10	10-04, 10-90	1mm	
148	-03 or -13	10-04, 10-90, 12-04	3mm	

12-03 Series /12R0380 Collets - Cleco Dotco

Cleco Dotco Pencil Grinder collets

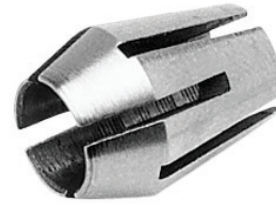
- Used on Cleco Dotco 12-03 Right Angle Pencil grinders
- sizes

Model	Tool Termination	Tool Series	Collet Size
			in
01-0100	-18	12-03	1/8 in
01-0102	-16	12-03	3/32 in
01-0148	-13	12-03	3mm

Universal Collets - Cleco Dotco

- For use with 12-05, 12-22, 12-27 grinders

Model	Tool Termination	Tool Series	Collet Size
			in
7808PT	-45	12-05, 12-22, 12-27	1/4 in



Termination 01 - Series 200 Collets Cleco Dotco

- Series 200 Collet



Model	Description	Tool Termination	Tool Series	Collet Size
				in
204	COLLET 1/8" E200	-0108	12-20, 12-25, 12-21, 12-22, 12-26, 12-27, 12-31	1/8 in
205	COLLET 5/32" E200	-0110	12-20, 12-25, 12-21, 12-22, 12-26, 12-27, 12-31	5/32 in
206	COLLET 3/16" E200	-0112	12-20, 12-25, 12-21, 12-22, 12-26, 12-27, 12-31	3/16 in
207	COLLET 7/32" E200	-0114	12-20, 12-25, 12-21, 12-22, 12-26, 12-27, 12-31	7/32 in
208	COLLET 1/4" E200	-01	12-20, 12-25, 12-21, 12-22, 12-26, 12-27, 12-31	1/4 in
209	COLLET 9/32" E200	-0118	12-20, 12-25, 12-21, 12-22, 12-26, 12-27, 12-31	9/32 in
210	COLLET 5/16" E200	-0120	12-20, 12-25, 12-21, 12-22, 12-26, 12-27, 12-31	5/16 in
212	COLLET 3/8" E200	-0124	12-20, 12-25, 12-21, 12-22, 12-26, 12-27, 12-31	3/8 in
213	COLLET 6MM E200	-01M6	12-20, 12-25, 12-21, 12-22, 12-26, 12-27, 12-31	6mm
216	COLLET 8MM E200	-01M8	12-20, 12-25, 12-21, 12-22, 12-26, 12-27, 12-31	6mm

Termination 36 - Series 300 Collets Cleco Dotco

- Series 300 Collet



Model	Description	Tool Termination	Tool Series	Collet Size
				in
301	Series 300 Collet	-3603	12-10, 12-11, 12-12, 12-20, 12-25	3/64 in
302	Series 300 Collet	-3605	12-10, 12-11, 12-12, 12-20, 12-25	5/64 in
303	COLLET 3/32" E300	-3606	12-10, 12-11, 12-12, 12-20, 12-25	3/32 in
304	COLLET 1/8" E300	-3608	10-95, 12-10, 12-11, 12-12, 12-20, 12-25	1/8 in
305	COLLET 5/32" E300	-3610	12-10, 12-11, 12-12, 12-20, 12-25	5/32 in
306	COLLET 3/16" E300	-3612	12-10, 12-11, 12-12, 12-20, 12-25	3/16 in
307	COLLET 7/32" E300	-3612	12-10, 12-11, 12-12, 12-20, 12-25	7/32 in
308	COLLET 1/4" E300	-36	10-95, 12-10, 12-11, 12-12, 12-20, 12-25	1/4 in
310	COLLET 6MM E300	-36M3	12-10, 12-11, 12-12, 12-20, 12-25	6mm
311	COLLET 3MM E300	-36M6	12-10, 12-11, 12-12, 12-20, 12-25, 12-05, 12-22, 12-27	3mm

Termination 62 - Series K Collets

- Series K Collet
- For Use with 10T/11T Routers

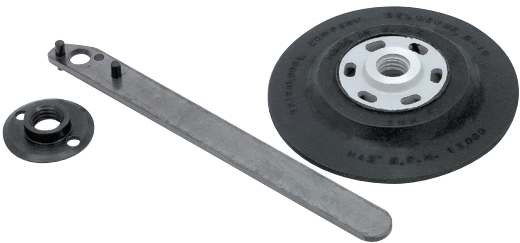


Model	Description	Tool Termination	Tool Series	Collet Size
				in
120	COLLET 1/8" K SERIES	-6208	10-43, 11-43	1/8 in
122	COLLET 1/4" K SERIES	-6216	10-43, 11-43	1/4 in
123	COLLET 5/16" K SERIES	-6220	10-43, 11-43	5/16 in
124	COLLET 3/8" K SERIES	-62	10-43, 11-43	3/8 in
126	COLLET 1/2" K SERIES	-6232	10-43, 11-43	1/2 in
135	COLLET 10MM K SERIES	-6270	10-43, 11-43	10mm

Spiral Cool Sanding Kits

Sanding backing Pads for Grinders

Model	Description	Tool Series	Size
861655	Grinder Accessories	25RA, 15V, 1200V, 2260AGL	7"
861792	Grinder Accessories	216RA, 236RA, C3	5"

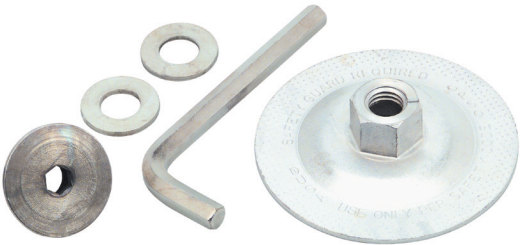


Grinders

Type 27 & 28 Wheel Adapter Kit

Used for with Type 27 & Type 28 Wheels

Model	Tool Series
849269	15V, 1200V, 1700V, 1900V, 3060V, 4060V



Noise Suppressor Guard Cleco Dotco

For use with 12-10 front exhaust tools only

- Completely covers the collet
- For use with 12-10 front exhaust tools only
- Limits the diameter of the cutting tool used to 1/2"
- Air is exhausted at an angle

Model	Tool Series
14-2188	12-10 Front Exhaust

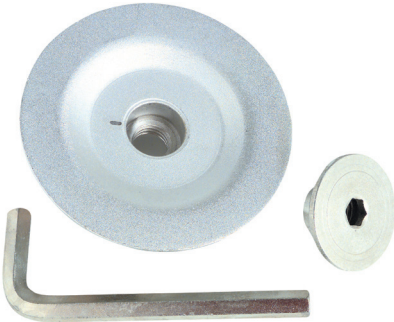


Depressed Center Wheel Adapter

Adaptor Kit for 7" and 9" Depressed Center Wheels

- Adapt a 7/8" arbor abrasive to a 5/8"-11 threaded spindle

Model
14-5008



12LF Series - Sander - Right Angle - 300 Series Collet - Cleco Dotco

12,000 - 20,000 RPM 0.4 hp (0.29 kW)

- Composite housing
- 12000rpm or 20000rpm, front and rear exhaust models available
- Ergonomic and balanced design minimized operator fatigue
- Tool not supplied with backing pad as shown
- Conversion kits available to add OH Overhose on rear exhaust tools for additional noise suppression



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Abrasive Capacity Sander	Weight	Length	Head Height	Air Inlet Size
			r/min			Lb	in	in	in
12LF281-36	1/4 in	Rear	20000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing disc	1.1	6.6	2.70	1/4 in
12LF280-36	1/4 in	Rear	12000	1/2" Carbide Burr, 1" Mounted Wheel	3" (75 mm) Sanding/Polishing disc	1.1	6.6	2.70	1/4 in
12LF201-36	1/4 in	Front	20000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing disc	1.1	6.6	2.70	1/4 in
12LF200-36	1/4 in	Front	12000	1/2" Carbide Burr, 1" Mounted Wheel	3" (75 mm) Sanding/Polishing disc	1.1	6.6	2.70	1/4 in
12LF201-32	1/4 in-28i	Front	20000	2" (50 mm) Sanding/Polishing disc	2" (50 mm) Sanding/Polishing disc	1.1	6.6	2.70	1/4 in
12LF200-32	1/4 in-28i	Front	12000	3" (75 mm) Sanding/Polishing disc	3" (75 mm) Sanding/Polishing disc	1.1	6.6	2.70	1/4 in

All tools performance rated @ 90 psi / 620 kPa air pressure.
 Standard Equipment:
 Applicable collet, collet wrenches
 Minimum Hose I.D.: 1/4 in / 4.8 mm

10LF Series - Sander - Right Angle - 300 Series Collet - Cleco Dotco

12,000 - 20,000 RPM 0.4 hp (0.29 kW)

- Aluminum housing for high durability
- 12000rpm or 20000rpm, front and rear exhaust models available
- Ergonomic and balanced design minimized operator fatigue
- Tool not supplied with backing pad as shown
- Conversion kits available to add OH Overhose on rear exhaust tools for additional noise suppression



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Abrasive Capacity Sander	Weight	Length	Head Height	Air Inlet Size
			r/min			Lb	in	in	in
10LF281-36	1/4 in	Rear	20000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing Disc	1.1	6.6	2.70	1/4 in
10LF200-36	1/4 in	Front	12000	1/2" Carbide Burr, 1" Mounted Wheel	3" (75 mm) Sanding/Polishing Disc	1.1	6.6	2.70	1/4 in
10LF280-36	1/4 in	Rear	12000	1/2" Carbide Burr, 1" Mounted Wheel	3" (75 mm) Sanding/Polishing Disc	1.1	6.6	2.70	1/4 in
10LF201-36	1/4 in	Front	20000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing Disc	1.1	6.6	2.70	1/4 in
10LF201-32	1/4 in-28i	Front	20000	2" (50 mm) Sanding/Polishing Disc	2" (50 mm) Sanding/Polishing Disc	1.1	6.6	2.90	1/4 in
10LF200-32	1/4 in-28i	Front	12000	3" (75 mm) Sanding/Polishing Dis	3" (75 mm) Sanding/Polishing Disc	1.1	6.6	2.90	1/4 in

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

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 1/4 in / 4.8 mm

12-13 Series - Sander - Right Angle - Gearless - 300 Series Collet - Cleco Dotco

20,000 - 30,000 RPM 0.3 hp (0.22 kW)

- Composite housing
- Wide array of speeds offered; front and rear exhaust models available
- Suitable for a wide range of finishing and deburring applications
- Tool not supplied with backing pad as shown



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Abrasive Capacity Sander	Weight	Length	Head Height	Air Inlet Size
			r/min			Lb	in		
12L1300-32	1/4 in-28i	Front	30000		1" (25mm) Sanding/Polishing Disc	1.1	7.1	3.70	1/4 in
12L1301-32	1/4 in-28i	Front	25000		2" (50 mm) Sanding/Polishing Disc	1.1	7.1	3.70	1/4 in
12L1300-36	1/4 in	Front	30000	1/2" Carbide Burr, 1" Mounted Wheel	1" (25mm) Sanding/Polishing Disc	1.1	7.1	3.70	1/4 in
12L1380-36	1/4 in	Rear	30000	1/2" Carbide Burr, 1" Mounted Wheel	1" (25mm) Sanding/Polishing Disc	1.1	7.1	3.70	1/4 in
12L1381-36	1/4 in	Rear	25000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing Disc	1.1	7.1	3.70	1/4 in
12L1382-36	1/4 in	Rear	20000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing Disc	1.1	7.1	3.70	1/4 in
12L1302-36	1/4 in	Front	20000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing Disc	1.1	7.1	3.70	1/4 in
12L1301-36	1/4 in	Front	25000	1/2" Carbide Burr, 1" Mounted Wheel	2" (50 mm) Sanding/Polishing Disc	1.1	7.1	3.70	1/4 in

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

Standard Equipment:

Applicable collet, collet wrenches

Minimum Hose I.D.: 1/4 in / 4.8 mm

Cleco Dotco 12-22 Series - Right Angle - Grinder/Sander - Extended Head 300 Series Collet

18,000 RPM 0.6 hp (0.45 kW)

- Ergonomic composite housing
- Heavy duty low profile head for greater accessibility
- High output motor in a lightweight package
- 3" | 75mm Extended head



Cleco Dotco 12-22 Series - Right Angle - Grinder/Sander - Standard Head

9,000 RPM 0.6 hp (0.45 kW)

- Ergonomic composite housing
- Short Angle Head
- High output motor in a lightweight package



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Abrasive Capacity Sander	Weight	Length	Head Height	Air Inlet Size
			r/min			Lb			
12L2218-36	1/4 in	Rear	18000	1/2" Carbide Burr 1" Mounted Wheel	3" (50mm) Sanding/ Polishing Disc	1.76	7.5	2.70	1/4 in

All tools performance rated @ 90psi / 620 kPa air pressure.
Minimum Hose I.D.: 5/16in / 7.9mm
Standard Equipment: Applicable collet, collet wrenches

Cleco Dotco 10-27 & 12-27 Series - Heavy Duty Head - Sander/Grinder - 5/8"-11 Threaded Spindle

850 - 11,000 RPM 0.9 hp (0.67 kW)

- Aluminum 10L and Composite 12L housing options
- High output motor for demanding sanding applications
- Heavy duty low profile head for superior durability
- Tool not supplied with backing pad as shown



Model	Exhaust	Free Speed	Abrasive Capacity Sander	Spindle Size	Weight	Length	Head Height	Air Inlet Size
		r/min			Lb	in	in	in
10L2750-80	Front	6000	7" (178 mm) Sanding/Polishing Disc		3.09	8.5	3.90	1/4 in
10L2751-80	Front	9000	5" (127 mm) Sanding/Polishing Disc		3.09	8.5	3.90	1/4 in
12L2750-80	Front	6000	7" (178 mm) Sanding/Polishing Disc		3.31	9.8	3.90	1/4 in
12L2751-80	Front	9000	5" (127 mm) Sanding/Polishing Disc		3.31	9.8	3.90	1/4 in
12L2752-80	Front	11000	4" (102 mm) Sanding/Polishing Disc		3.31	9.8	3.90	1/4 in
12L2760-80	Front	3300	7" (178 mm) Sanding/Polishing Disc		3.97	10.5	3.90	1/4 in
12L2762-80	Front	4500	7" (178 mm) Sanding/Polishing Disc		3.97	10.5	3.90	1/4 in
12L2788-80	Front	2200	7" (178 mm) Sanding/Polishing Disc		3.97	10.5	3.90	1/4 in

All tools performance rated @ 90 psi / 620 kPa air pressure.
Minimum Hose I.D.: 5/16 in / 7.9 mm
Standard Equipment:
Applicable collet, collet wrenches

Cleco Dotco 12-12 Series - Belt Sander

12,000 - 20,000 RPM 0.3 hp (0.22 kW)

- Grind, debur, strap polish, blend
- Choice of geared or gearless
- Ergonomic housing reduces cold air transmission to operator



Model	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Air Inlet Size
		r/min		Lb	in	in
12L1280-36B2	Rear	12000	1/2" W x 12" L Sanding Belt	1.32	11.3	1/4 in
12L1281-36B2	Rear	20000	1/2" W x 12" L Sanding Belt	1.32	11.3	1/4 in

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

Minimum Hose I.D.: 1/4in / 4.8mm

Standard Equipment: No.80 and No.120 grit sanding belt or one medium grit non-woven belt, applicable wrenches, grease gun, gear lube

Cleco Dotco 12LF Series - Belt Sander

12,000 - 20,000 RPM 0.4hp (0.29 kW)

- Grind, debur, strap polish, blend
- Based on 12LF Grinder



Model	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Air Inlet Size
		r/min		Lb	in	in
12LF280-36B2	Rear	12000	1/2"W x 12"L Sanding Belt	1.32	11.3	1/4 in
12LF281-36B2	Rear	20000	1/2"W x 12"L Sanding Belt	1.32	11.3	1/4 in

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

Minimum Hose I.D.: 1/4in / 4.8mm

Standard Equipment: No.80 and No.120 grit sanding belt or one medium grit non-woven belt, applicable wrenches, grease gun, gear lube

Cleco Dotco 12-23 Series - Gearless - Woven or Non-Woven Sanding Belt

20,000 RPM 0.5 hp (0.38 kW)

- Grind, debur, strap polish, blend
- Choice of geared or gearless
- Ergonomic housing reduces cold air transmission to operator



Model	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Air Inlet Size
		r/min		Lb	in	in
12L2384-B1	Front	20000	5/8" or 3/4" W x 18" L Sanding Belt	2.43	15	1/4 in

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

Minimum Hose I.D.: 1/4 in / 4.8 mm

Standard Equipment:

No.80 and No.120 grit sanding belt or one medium grit non-woven belt, applicable wrenches, grease gun, gear lube

Cleco Dotco 12-10 Series - Buffer - 200 Series Collet

3,200 - 5,000 RPM 0.3 hp (0.22 kW)

- Ergonomic composite housing
- Parts interchangeable with numerous other Dotco products
- Lightweight and compact design with powerful geared motor



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Spindle Size	Weight	Length	Air Inlet Size
			r/min			Lb	in	in
12L1092-01	1/4 in	Rear	3200	3" (75 mm) Wire Brush 3" (75mm) Buffing Wheel	5/8" - 11 e	1.54	7.2	1/4 in
12L1093-01	1/4 in	Rear	5000	3" (75 mm) Wire Brush 3" (75mm) Buffing Wheel	5/8" - 11 e	1.54	7.2	1/4 in

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

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

Standard Equipment:

Applicable collet, collet wrenches

Cleco Dotco 12-42 Series - External Threaded Spindle

3,400 RPM 1.7 hp (1.27 kW)

- High output motor for the most demanding applications
- Comfortable and ergonomic composite handle
- Includes auxiliary handle for optimum operator control
- Tool not supplied with backing pad as shown



Wheel and Abrasive
Not Included

Model	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Head Height	Air Inlet Size
		r/min		Lb	in	in	in
12L4207-80	Side	7200	7" (175mm) Sanding Disc	6.4	13.6	3.90	1/2 in
12L4206-80	Side	6000	9" (225mm) Sanding Disc	6.4	13.6	3.90	1/2 in

All tools performance rated @ 90 psi / 620 kPa air pressure.
Minimum Hose I.D.: 1/2 in / 12.7 mm
Standard Equipment:
Nut, washer, spacer and wrenches

Cleco C31 Right Angle Sander

- High-performance 1.7Hp motor delivers maximum power
- Quick change spindle lock for fast and easy abrasive changes
- Quieter operation with rear exhaust overhose standard
- Ergonomic, anti-vibration handle for increased comfort and less operator fatigue
- Dual-layer, high-impact composite housing for extreme durability



Model	Exhaust	Free Speed	Spindle Size	Weight	Length	Head Height	Air Inlet Size
		r/min		Lb	in	in	in
C3120AS- DR-580H	Rear	12000	5/8" - 11	4.05	8.95	3.03	3/8 in

Sanding Belts - Non-Woven

Used on Cleco Dotco Belt Sanders

- Minimum order - 10 of any one belt

Model	Abrasive Capacity Grinder	Grit Size
14-1728	1/4" x 18"	Extra Fine
14-1729	1/4" x 18"	Fine
14-1730	1/4" x 18"	Medium
14-1731	1/4" x 18"	Coarse
14-2327	3/4" x 18"	Medium

Minimum order: 10 of any one belt



Sanding Belts - Aluminum Oxide, Resin Bond

Used on Cleco Dotco Belt Sanders

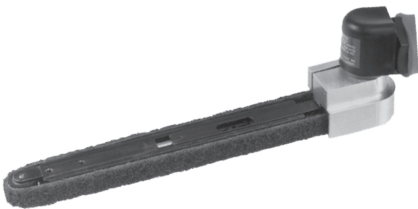
- Minimum order - 10 of any one belt

Model	Description	Abrasive Capacity Grinder	Grit Size
14-1344		1/2" x 12"	40
14-1345		1/2" x 12"	50
14-1346		1/2" x 12"	60
14-1348		1/2" x 12"	80
14-1350		1/2" x 12"	100
14-1352		1/2" x 12"	120
14-1355		1/2" x 12"	150
14-1358		1/2" x 12"	180
14-1360		1/2" x 12"	240
14-1362		1/2" x 12"	320
14-1582		1" x 12"	60
14-1583		1" x 12"	80
14-1585		1" x 12"	120
14-1591		1/4" x 12"	80
14-1593		1/4" x 12"	120
14-1648		1" x 24"	180



Cleco Dotco Belt Sander Attachments

Used on Cleco Dotco Belt Sanders - 12LF

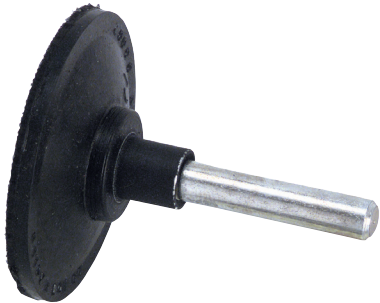


Model	Description	Sanding Area	Abrasive Capacity Grinder	Tool Series	Collet Size	Spindle Size
		in			in	
14-1301	Coated Abrasive Attachments	1/2" x 4"	1/2" x 12" Sanding Belt	12-12, 12-13		1/4"-28 Internal
14-1316	Coated Abrasive Attachments	1/2" x 4"	1/2" x 12" Sanding Belt	12-12, 12-13	300 in	
14-1473	Coated Abrasive Attachments	1" x 4"	1" x 12" Sanding Belt	12-12, 12-13	300 in	
14-1639	Coated Abrasive Attachments	1/4" x 4"	1/4" x 12" Sanding Belt	12-12, 12-13	300 in	

Cleco Dotco PSA Disc Holders

PSA Disco Holders Mount in Collet Output

- For Collet Chuck 1/4" Shank
- 1", 2" and 4" OD



Model	Shank Diameter Capacity	Diameter	Spindle Size
		in	
14-1110	1/4 in	1	5-40 Female
14-1112	1/4 in	2	1/4"-20 Female
14-1114	1/4 in	4	1/4"-20 Female

Sanding Pad Nut

For use with Cleco Dotco sanders with 5/8"-11 threaded spindles

- For use with Cleco Dotco sanders with 5/8"-11 threaded spindles

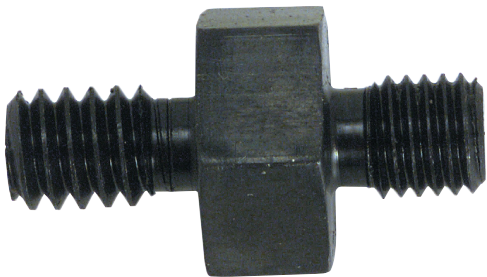


Model	Spindle Size
14-2118	5/8"-11 Threaded Spindle

Spindle Adapter

Adapts Female to Male Thread

- Female to Male Adaptor



Model	Diameter	Spindle Size
	in	
14-1144	4	1/4"-28 Male / 1/4"-20 Male

Cleco MP Series Pencil Grinders

70,000 RPM 0.06 hp (0.044 kW)

- Cleco MP series are industrial grade medium duty tools suitable for a wide range of production and MRO applications.
- Ideal for precision deburring, blending and smoothing applications
- Rear exhaust directs air away from work
- Standard with 5 ft air hose and 1 ft overhose
- Ideal for tight spots
- Slim comfortable design with ergonomic grip for operator comfort



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Overhose	Weight	Length	Air Inlet Size
			r/min			Lb	in	in
MP4200	1/8 in	Rear	70000	1/4" Carbide Burr, 1/4" Diamond Pin	1 ft 0.3 m	0.441	5.4	1/8 in
MP4201	1/8 in	Rear	70000	1/4" Carbide Burr, 1/4" Diamond Pin	1 ft 0.3 m	0.441	5.9	1/8 in

General: Air Inlet 1/4" NPT. Use 1/4" (6.4 mm) I.D. hose.
All tools performance rated @ 90psi (620 kPa) air pressure.
Optional: MP4200 - 70617600 1/8" collet kit (5 pcs.), 70620200PT - 3mm collet kit (5 pcs.)
MP4201 - 70618800 1/8" collet kit (5 pcs.), 70620400PT - 3mm collet kit (5 pcs.)

Cleco MP Series Die Grinder - Inline and Right Angle

20,000 RPM 0.3 hp (0.223 kW)

- MP4424 is Angle grinder; MP4430 and MP4458 are In line grinders
- Ergonomic grip for operator comfort
- MP Series for MRO and lower duty production



Model	Collet Size	Exhaust	Free Speed	Abrasive Capacity Grinder	Weight	Length	Air Inlet Size
			r/min		Lb		
MP4424	1/4 in	Rear	20000	1/2" Carbide Burr, 1" Mounted Wheel	1.32	6.4	1/4 in
MP4430	1/4 in	Rear	23000	1/2" Carbide Burr, 1" Mounted Wheel	0.88	6	1/4 in
MP4458	1/4 in	Front	25000	1" Carbide Burr, 1.5" Mounted Wheel	1.32	6.1	1/4 in

General: Air Inlet 1/4" NPT. Use 1/4" (6.4 mm) I.D. hose.

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

Optional: MP4424 & MP4430: 70610500 1/4" collet; 70610600 6 mm collet; MP4424

Cleco Dotco 10-10 & 12-10 Series - Inline Router

30,000 - 34,000 RPM 0.3 hp (0.22 kW)

- 10 L Aluminum Handle, 12L Composite Handle
- Compact router - based on standard grinder
- Router guides sold separately



Model	Exhaust	Shank Diameter Capacity	Free Speed	Type Housing	Weight	Length	Air Inlet Size
		in	r/min		Lb	in	in
12L1000-36RT	Front	1/4 in	30000	Composite	1.32	6.7	1/4 in
12L1001-36RT	Front	1/4 in	34000	Composite	1.32	6.7	1/4 in

All tools performance rated @ 90psi / 620 kPa air pressure.
Minimum Hose I.D.: 1/4in / 6.4mm
Standard Equipment: Collet, applicable wrenches

Cleco Dotco 10-20 & 12-20 Series - Inline Router

20,000 - 25,000 RPM 0.6 hp (0.45 kW)

- 10 L Aluminum Handle, 12L Composite Handle
- Compact router - based on standard grinder
- Router guides sold separately



Model	Exhaust	Shank Diameter Capacity	Free Speed	Type Housing	Weight	Length	Air Inlet Size
		in	r/min		Lb	in	in
10L2000-01RT	Front	1/4 in	25000	Aluminum	1.76	0.63	1/4 in
12L2000-01RT	Front	1/4 in	25000	Composite	1.98	7.5	1/4 in
12L2001-01RT	Front	1/4 in	20000	Composite	1.98	7.5	1/4 in
12L2080-01RT	Rear	1/4 in	25000	Composite	1.98	7.5	1/4 in
12L2081-01RT	Rear	1/4 in	20000	Composite	1.98	7.5	1/4 in

All tools performance rated @ 90psi / 620 kPa air pressure.
Minimum Hose I.D.: 5/16in / 7.9mm
Standard Equipment:
Collet, applicable wrenches

Cleco Dotco 10-25 & 12-25 Series - Inline Router

18,000 - 23,000 RPM 0.9 hp (0.67 kW)

- 10 L Aluminum Handle, 12L Composite Handle
- Higher power motor for faster routing
- Router guides sold separately



Model	Exhaust	Shank Diameter Capacity	Free Speed	Type Housing	Weight	Length	Air Inlet Size
		in	r/min		Lb	in	in
10L2500-01RT	Front	1/4 in	23000	Aluminum	2.43	6.9	1/4 in
10L2580-01RT	Rear	1/4 in	23000	Aluminum	2.43	6.9	1/4 in
12L2500-01RT	Front	1/4 in	23000	Composite	2.65	7.1	1/4 in
12L2502-01RT	Front	1/4 in	18000	Composite	2.65	7.1	1/4 in
12L2580-0124RT	Rear	3/8 in	23000	Composite	2.65	7.1	1/4 in
12L2580-01RT	Rear	1/4 in	23000	Composite	2.65	7.1	1/4 in
12L2582-0124RT	Rear	3/8 in	18000	Composite	2.65	7.1	1/4 in
12L2582-01RT	Rear	1/4 in	18000	Composite	2.65	7.1	1/4 in

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

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

Standard Equipment:

Collet, applicable wrenches

Cleco Dotco 12-40 Series - Inline Router

18,000 RPM 1.7 hp (1.27 kW)

- Maximum power for larger routing application
- Tremendous power for the toughest portable routing operations
- Unique governor design assures minimum air consumption, maximum power at correct speed and long motor life
- All models oil free



Model	Exhaust	Shank Diameter Capacity	Free Speed	Type Housing	Weight	Length	Air Inlet Size
		in	r/min		Lb	in	in
12L4018-01	Front	1/4 in	18000	Composite	4.19	11.3	1/2 in
12L4018-03	Front	3/8 in	18000	Composite	4.19	11.3	1/2 in

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

Minimum Hose I.D.: 1/2in / 12.7mm

Standard Equipment: Wheel guard and flange wrench

Cleco Dotco 12-13 Series - Right Angle Routers

20,000 - 30,000 RPM 0.3 hp (0.22 kW)

- Gearless tool, direct drive motor in angle head
- Front and rear exhaust



Model	Exhaust	Shank Diameter Capacity	Free Speed	Drive	Weight	Length	Air Inlet Size
		in	r/min		Lb	in	in
12L1300-36RT	Front	1/4 in	30000	Gearless 0.3 hp (0.22 kw)	1.54	7.4	1/4 in
12L1380-36RT	Rear	1/4 in	30000	Gearless 0.3 hp (0.22 kw)	1.54	7.4	1/4 in
12L1381-36RT	Rear	1/4 in	25000	Gearless 0.3 hp (0.22 kw)	1.54	7.4	1/4 in

All tools performance rated @ 90psi / 620 kPa air pressure
 Minimum hose I.D.: 1/4in | 6.4 mm
 Standard Equipment:
 Collet, applicable wrenches

Cleco Dotco 12-12 Series - Right Angle Routers

20,000 - 30,000 RPM 0.3 hp (0.22 kW)

- Available in both geared and gearless
- Multiple speed and power options available to find the right tool for the application



Model	Exhaust	Shank Diameter Capacity	Free Speed	Drive	Weight	Length	Air Inlet Size
		in	r/min		Lb	in	in
12L1201-36RT	Front	1/4 in	20000	Geared 0.3 hp (0.22 kw)	1.76	6.5	1/4 in
12L1281-36RT	Rear	1/4 in	20000	Geared 0.3 hp (0.22 kw)	1.76	6.5	1/4 in

All tools performance rated @ 90psi / 620 kPa air pressure
 Minimum hose I.D.: 1/4in | 6.4 mm
 Standard Equipment:
 Collet, applicable wrenches

Cleco Dotco 10-43 Series - Base Mount Router

9,000 - 18,000 RPM 1.7 hp (1.27 kW)

- Roll valve gives easy, convenient operation
- Cool running governed pneumatic motor - Stays cool even under heavy load
- Easy-to-use thumb throttle can be operated without releasing hand from handle
- Smooth accurate cuts - assured by precision spindle
- Uses K style colets - 3/8" Collet Supplied
- Uses third party base with aftermarket guides readily available



Model	Exhaust	Shank Diameter Capacity	Free Speed	Type Housing	Weight	Length	Air Inlet Size
		in	r/min		Lb	in	in
10T4309-62	Side	1/2 in	9000	Aluminum	7.5	7.1	1/2 in
10T4316-62	Side	1/2 in	16000	Aluminum	7.5	7.1	1/2 in
10T4318-62	Side	1/2 in	18000	Aluminum	7.5	7.1	1/2 in

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

Minimum Hose I.D.: 1/2in / 12.7mm

Standard Equipment: Wheel guard and flange wrench

Cleco Dotco 11-43 Series - Mountable Power Unit

18,000 RPM 1.7 hp (1.27 kW)

- Cool running pneumatic motor stays cool even under heavy load
- Flat top provides firm setting for changing cutters and making adjustments
- Smooth accurate cuts - assured by precision spindle
- 3/8" Collet Supplied



Model	Exhaust	Shank Diameter Capacity	Free Speed	Type Housing	Weight	Length	Air Inlet Size
		in	r/min		Lb	in	in
11T4309-62	Side	1/2 in	9000	Aluminum	5.5	7.1	1/2 in
11T4316-62	Side	1/2 in	16000	Aluminum	5.5	7.1	1/2 in
11T4318-62	Side	1/2 in	18000	Aluminum	5.5	7.1	1/2 in

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

Minimum Hose I.D.: 1/2in / 12.7mm

Standard Equipment: Wheel guard and flange wrench

Cleco Dotco Router Assemblies

For use with Cleco Dotco Inline Grinders

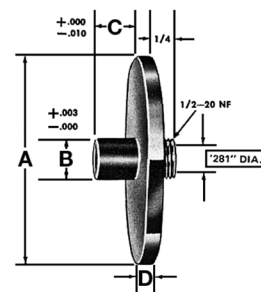
- For use with Cleco Dotco 10-10,12-10, 10-20,12-20 and 10-25, 12-25 series Inline Grinders
- Converts grinder to a router
- Thread mount with locking screw
- Router guides sold separately



Model	Shank Diameter Capacity	Tool Series
14-2180	1/4 in	12-20, 12-25
14-2187	1/4 in	12-10
14-2429	3/8 in	12-20, 12-25

Router Guides For Router Bits with 3/8" Shanks

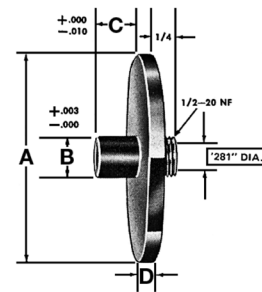
- For use on Dotco 12-10, 12-20, 12-20, 12-25 and 12-40 series.
- The minimum router bit length (OAL) to be used is determined by the formula:
 $OAL = 1-13/16" + C + P$ (series 12-10); $OAL = 2" + C + P$ (series 12-20 & 12-25).
 "C" is the "C" dimension of the router guide and "P" is the desired protrusion of the router bit.
- Important: Insert bit into collet as far as possible, then pull out 1/16" and tighten collet.
- In an emergency, if it is necessary to pull out the bit more than 1/4", be sure to insert a short length of blank shank (not to exceed 5/8" long) in the bottom of the collet before inserting the bit.
- May be subject to Minimum Order Quantities



Model	Dimension A	Dimension B	Dimension C	Dimension D
	in	in	in	in
14-2240	2-1/2	3/8	3/8	1/8
14-2243	2-1/2	5/8	3/8	1/8
14-2531	1-1/2	1/2	3/8	1/8
14-2538	1-1/2	1/2	1/2	1/8
14-2539	1-1/2	1/2	5/8	1/8
14-2540	1-1/2	9/16	3/8	1/8
14-2541	1-1/2	9/16	1/2	1/8
14-2542	1-1/2	9/16	5/8	1/8
14-2544	1-1/2	5/8	5/8	1/8
14-2630	2-1/2	9/16	1/2	1/8
14-2631	2-1/2	5/8	5/8	1/8
14-2632	2-1/2	1/2	1/2	1/8
14-2633	2-1/2	1/2	5/8	1/8
14-2634	2-1/2	9/16	3/8	1/8
14-2635	2-1/2	9/16	5/8	1/8
14-2636	2-1/2	5/8	1/2	1/8
14-2893	1-1/2	5/8	3/8	1/8
14-2925	1-1/2	5/8	1/2	1/8

Router Guides For Router Bits with 1/4" Shanks

- For use on Dotco 12-10, 12-20, 12-20, 12-25 and 12-40 series.
- The minimum router bit length (OAL) to be used is determined by the formula:
OAL = 1-13/16"+C+P (series 12-10); OAL = 2"+C+P (series 12-20 & 12-25).
"C" is the "C" dimension of the router guide and "P" is the desired protrusion of the router bit.
- Important: Insert bit into collet as far as possible, then pull out 1/16" and tighten collet.
- In an emergency, if it is necessary to pull out the bit more than 1/4", be sure to insert a short length of blank shank (not to exceed 5/8" long) in the bottom of the collet before inserting the bit.
- May be subject to minimum order quantities

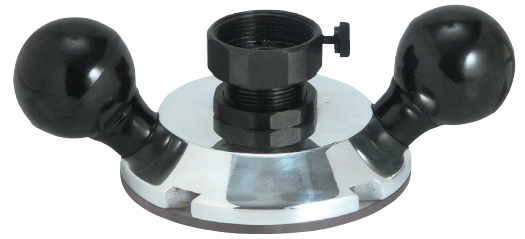


Model	Dimension A	Dimension B	Dimension C	Dimension D
	in	in	in	in
14-2400	1	3/8	1/8	1/8
14-2401	1	3/8	1/4	1/8
14-2402	1	3/8	3/8	1/8
14-2406	1	7/16	1/8	1/8
14-2407	1	7/16	1/4	1/8
14-2408	1	7/16	3/8	1/8
14-2411	1	1/2	1/4	1/8
14-2412	1	1/2	1/2	1/8
14-2413	1	1/2	5/8	1/8
14-2414	1	1/2	3/4	1/8
14-2417	1	9/16	1/8	1/8
14-2420	1	5/8	1/8	1/8
14-2421	1	5/8	5/8	1/8
14-2500	1-1/2	3/8	1/8	1/8
14-2501	1-1/2	3/8	1/4	1/8
14-2502	1-1/2	3/8	3/8	1/8
14-2505	1-1/2	7/16	1/8	1/8
14-2506	1-1/2	7/16	1/4	1/8
14-2507	1-1/2	7/16	3/8	1/8
14-2510	1-1/2	1/2	1/4	1/8
14-2511	1-1/2	1/2	3/8	1/8
14-2512	1-1/2	1/2	1/2	1/8
14-2600	2-1/2	1/2	1/2	3/16
14-2703	3/4	3/8	1/2	1/8

Cleco Dotco Two Handed Router Base - Add On For 10 and 12 Series Inline Grinders

Easy depth adjustment.

- Two handed control for router applications.
- Easy depth adjustment.
- Template Guides NOT supplied



Model	Tool Series
14-1577	12-10
14-2577	12-20, 12-25

Laminate Trimmer Attachment

For Use on Cleco Dotco 12-20 and 12-25 Series Routers



Model	Tool Series
14-2178	12-20, 12-25

Cleco Dotco 12-22 Series - Right Angle - Oscillating Saw

14,000 RPM 0.6 hp (0.45 kW)

- Easy to change blades
- Excellent control and high productivity with minimum fatigue



Model	Saw Blade Capacity		Free Speed	Type Housing	Maximum Depth of Cut		Weight	Length	Air Inlet Size	Exhaust
	in	mm	r/min		in	mm	Lb	in	in	
12L2240-90	2.50	63.5	14000	Composite	0.56	14.3	2.2	10.9	1/4 in	Rear

All tools performance rated @ 90psi / 620 kPa air pressure.
Minimum Hose I.D.: 5/16in / 7.9mm
Standard Equipment:
Applicable wrenches, oilless blades

Cleco Dotco 12-22 Series - Straight - Oscillating Saw

14,000 RPM 0.6 hp (0.45 kW)

- Easy to change blades
- Excellent control and high productivity with minimum fatigue



Model	Saw Blade Capacity		Free Speed	Type Housing	Maximum Depth of Cut		Weight	Length	Air Inlet Size	Exhaust
	in	mm	r/min		in	mm	Lb	in	in	
12L2065-90	2.50	63.5	14000	Composite	0.56	14.3	2.2	8.9	1/4 in	Rear

All tools performance rated @ 90psi / 620 kPa air pressure.
Minimum Hose I.D.: 5/16in / 7.9mm
Standard Equipment:
Applicable wrenches, oilless blades

Cleco Dotco 12-12 and 12LF Series - Saw

2,400 - 20,000 RPM 0.3 hp (0.22 kW) 0.4hp (.3kW) 12LF

- Vacuum ready
- Compact and easy to use
- Easy to change blades
- Adjustable depth control



Model	Saw Blade Capacity		Free Speed	Type Housing	Maximum Depth of Cut		Weight	Length	Air Inlet Size	Exhaust
	in	mm	r/min		in	mm	Lb	in	in	
12LF283-02	2.01	51	20000	Composite	0.43	11	1.32	7.1	1/4 in	Rear
12S1206-02	2.01	51	12000	Composite	0.43	11	1.32	7.1	1/4 in	Front
12S1207-02	2.01	51	20000	Composite	0.43	11	1.32	7.1	1/4 in	Front
12S1274-03	2.01	51	20000	Composite	0.43	11	2.2	7.1	1/4 in	Vacuum Ready
12S1282-02	2.01	51	12000	Composite	0.43	11	1.32	7.1	1/4 in	Rear
12S1283-02	2.01	51	20000	Composite	0.43	11	1.32	7.1	1/4 in	Rear
12S1289-02	2.01	51	3600	Composite	0.43	11	1.54	8.9	1/4 in	Rear

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

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

Standard Equipment: Applicable wrenches, oilless blades

Cleco Dotco 12-27 Series - Saw

430 - 11,000 RPM 0.9 hp (0.67 kW)

- Compact and easy to use
- Excellent control and high productivity with minimum fatigue
- Easy to change blades



Model	Saw Blade Capacity		Type Housing	Maximum Depth of Cut		Weight	Length	Air Inlet Size	Exhaust
	in	mm		in	mm				
12S2748-01	4.02	102	Composite	1.00	25.4	4.9	11.4	1/4 in	Front
12S2749-01	3.39	86	Composite	1.00	25.4	4.9	11.4	1/4 in	Front
12S2774-02	3.39	86	Composite	1.00	25.4	6.4	14.1	1/4 in	Vacuum Ready

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

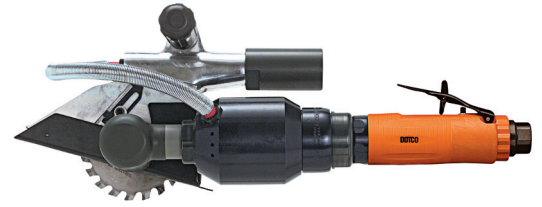
Minimum Hose I.D.: 5/16in / 7.9mm

Standard Equipment: Applicable wrenches, oilless blades, 3/4in Arbor adapter

Cleco Dotco 12-42 Series - Saw

5,800 - 8,600 RPM 1.7 hp (1.27 kW)

- Adjustable depth control
- Easy to change blades
- Compact and easy to use



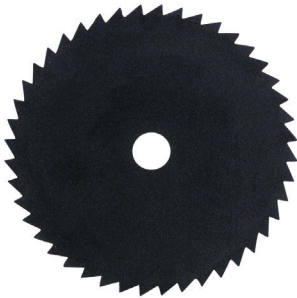
Model	Saw Blade Capacity		Free Speed	Type Housing	Maximum Depth of Cut		Weight	Length	Air Inlet Size	Exhaust
	in	mm			in	mm				
12S4216-01	4.02	102	5800	Composite	1.00	25.4	7.9	15.5	1/4 in	Front
12S4218-01	4.02	102	8600	Composite	1.00	25.4	7.9	15.5	1/4 in	Front

All tools performance rated @ 90psi / 620 kPa air pressure.
 Minimum Hose I.D.: 1/2in / 12.7mm
 Standard Equipment: Wheel guard and flange wrench

Saw Blades - 1/4" arbor hole

Used on Cleco Dotco Saws

- Used for sawing non-metallic materials



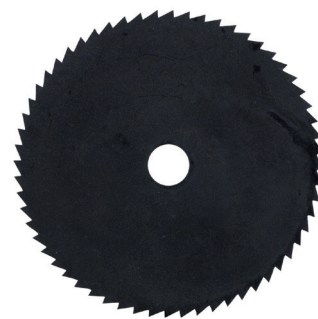
Model	Description	Maximum Depth of Cut	Speed	Diameter
		in	r/min	in
14-1395	Discontinued	7/16" x 3/32"	20000	2
14-1875	1.25" OD 22T for Aluminum, Laminated Plastics, Pressed Board, Wood	3/32" x 1/16"	12000	1-1/4
14-1890	2" OD 22T for Aluminum, Laminated Plastics, Pressed Board, Wood	7/16" x 1/16"	12000	2
14-1891	2" OD 44T for Aluminum, Laminated Plastics, Pressed Board, Wood	7/16" x 1/16"	12000	2
14-1892	2" OD 60T for Aluminum, Laminated Plastics, Pressed Board, Wood	7/16" x 1/16"	12000	2
14-1895	1.5"OD 22T Aluminum, Laminated Plastics, Pressed Board, Wood	7/32" x 1/16"	12000	1-1/2

CAUTION: Use only for sawing non-metallic materials

Saw Blades - 7/16" arbor hole

Used on Cleco Dotco Saws

- Used on Cleco Dotco Saws



Model	Description	Maximum Depth of Cut	Tool Series	Diameter
		in		in
14-1888	2" OD 44T for Aluminum, Laminated Plastics, Pressed Board, Wood.	7/16" X 1/16"	12S1288-04	2
14-1889	2" OD 60T for Aluminum, Laminated Plastics, Pressed Board, Wood	7/16" X 1/16"	12S1288-04	2
14-2147	2 1/2" OD 44T for 1/4" Aluminum, 1/2" Plywood, 1/2" Phenolic	9/16	12S2794-01	2-1/2
14-2928	3 1/2" OD 60T for 1/4" Aluminum, 1/2" Plywood, 1/2" Phenolic	15/16"	12S2794-02	3-3/8

Saw Blades - 3/4" arbor hole

Used on Cleco Dotco Saws

- Used for sawing non-metallic materials



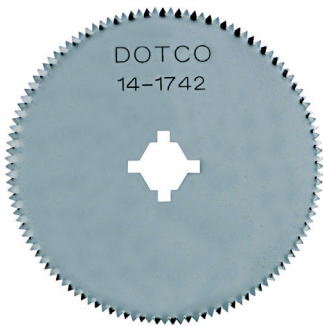
Model	Description	Maximum Depth of Cut	Diameter
		in	in
14-2690	4"OD Diamond 60-80 Grit for Fiberglass, Composite, Carbon Fiber	1" x 5/64"	4
14-2700	4"OD Carbide Tip 20T for Thicker Fiberglass, Plastic Laminates to 1/2" thick	1" x 7/64"	4
14-2710	4"OD Carbide Tip 20T special for Thin non-ferrous material (to approx . 1/8" thick)	1" x 7/64"	4
14-2711	4"OD Carbide Tip 12T Special for Thicker non-ferrous material (to approx . 1/2" thick)	1" x 7/64"	4

CAUTION: These carbide chip and tip and diamond blades are not to be used on metallic materials.
Slim blade for easy cutting of fiberglass, with minimum dust -36 grit on periphery and 80 grit on the sides.

Saw Blades - oscillating saws with 3/8” arbor hole

Used on Cleco Dotco Oscillating Saw

- Used on 12-22 Series Oscillating saws



Model	Description	Maximum Depth of Cut	Diameter
		in	in
14-1740	2" OD Carbide Chip 36/80 Grit for Fiberglass	7/16" x 3/32"	2
14-1742	2.5" OD 124T for Wood, Uncured or Cured Composites, Aluminum, Plastic	9/16" x 3/64"	2-1/2

Use only for sawing non-metallic materials.

Vacuum Conversion Kits 12-42 series

Converts front exhaust to a one of the configurations shown below

- Refer to the Vacuum Ready 12-42 Models in the catalog



Model	Description	Tool Series
4133	Option 3 - Vacuum System Adapter	12-42

To convert an existing Cleco Dotco front exhaust series 12-42 saw to Vacuum operation, order any of the conversion kits listed in the table.
NOTE: When converting to vacuum, free speed of the tool will be reduced 20%.

MP5187 - Lightweight Needle Scaler

Almost half the weight of standard models with similar BPM

- 4200 Blows per minute
- Compact design for work in close quarters
- Almost half the weight of standard models with similar BPM
- Precision heat treated needles for maximum performance



Model	Bore	Stroke (in)	Blows Per Minute	Air Inlet Size	Length	Weight
				in	in	Lb
MP5187	0.79 in	0.590 in	4200	1/4 in	8.9	2.5

General: Air Inlet 1/4" NPT Use 1/4" (9.6mm) I.D. Hose
All tools performance rated @ 90psi (620 kPa) air pressure.
Standard Equipment:
MP5187: 12 needles, 1/8" (3mm) dia., 5" (125mm) long.
Owners Manual, Parts sheet.
Optional Equipment:
MP5187:
71010300: (12) 3mm x 5" with 3mm needle holder

B1 Series - Push-Pull Start - Chisel Scaler

Built-in Chisel Retainer



- Built-in1 Chisel Retainer
- Chisel Type

Model	Bore	Chisel	Stroke (in)	Abrasive Capacity Grinder	Blows Per Minute	Air Inlet Size	Length	Weight	Retainer Type
						in	in	Lb	
B1-C-PT	1 in	.500 in	1.100 in	1/2" 12.7 mm Square Stock	4600	1/4 in	12	4.41	Built-in

All tools performance rated @ 90psi / 620 kPa air pressure.
Minimum Hose I.D.: 5/16in / 7.9mm
Standard Equipment:
Operating instructions & service manual

B Series - Lever Start - Chisel Scaler

Built-in Chisel Retainer



- Built-in Chisel Retainer
- Chisel Type

Model	Bore	Chisel	Stroke (in)	Abrasive Capacity Grinder	Blows Per Minute	Air Inlet Size	Length	Weight	Retainer Type
						in	in	Lb	
B1-C-LT	1 in	.500 in	1.100 in	1/2" 12.7 mm Square Stock	4600	1/4 in	10.3	4.41	Built-in
BR-C-LT	1 in	.625 in	1.100 in	5/8" 16 mm round stock	4200	1/4 in	10.4	4.41	Built-In

All tools performance rated @ 90psi / 620 kPa air pressure.
Minimum Hose I.D.: 5/16in / 7.9mm
Standard Equipment:
Operating instructions & service manual

MP5195 - Long Reach Scaler

Long reach scaler design for quick and easy stripping of dirt, grease, paint, glue, resins, floor coverings and tiles



- 2200 Blows per minute
- For rugged scaling applications
- Long reach scaler design for quick and easy stripping of dirt, grease, paint, glue, resins, floor coverings and tiles

Model	Stroke (in)	Blows Per Minute	Length	Weight
			in	Lb
MP5195	1.500 in	2200	60	11.5

General: Air inlet 1/4" NPT for MP5195 Model. Use 1/4" (9.6mm) I.D. hose.
All tools performance rated @ 90psi (620 kPa) air pressure.
Standard Equipment: 4" 5/8 hex chisel.
Owners Manual, Parts list

CH30 Series Chipping Hammer

Heavy duty for rugged use



- Heavy duty for rugged use
- Ring valve hard hitting hammer
- Forged steel hammer
- Heat treated cylinder & piston for reduced wear
- Replaceable bushing

Model	Bore	Chisel	Stroke (in)	Abrasive Capacity Grinder	Blows Per Minute	Air Inlet Size	Length	Weight	Retainer Type
						in	in	Lb	
CH-30-HX	1.125 in	.580 in	2.500 in	.580 in 14.7 mm Hex	2200	3/8 in	17.7	15	Standard
CH-30-RD	1.125 in	.680 in	2.500 in	.680 in 17.3 mm Round Shank	2200	3/8 in	17.7	15	Standard

All tools performance rated @ 90psi / 620 kPa air pressure.
Minimum Hose I.D.: 1/2in / 12.7mm
Standard Equipment: Wheel guard and flange wrench

F Series Rivet Hammer - Cleco

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	Exhaust	Blows Per Minute	Weight	Weight (kg)	Length	Length (mm)
			Lb		in	
F4-PT-RT-B	Rear	1700	3.31	1.5 kg	8.7	221 mm



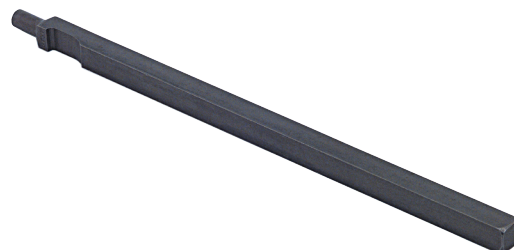
All tools performance rated @ 90 psi / 620 kPa air pressure.
Minimum Hose I.D.: 1/4 in / 6.4 mm
Standard Equipment:
Operating instructions & service manual

B1 Series Chisels (Safety Retainer Type)

For use with B1 Series Chisels

-

Model	Description	Stock Size	Length	
		in	in	mm
839050	Spoon Chisel	1/2 in	7.3	184.15
839051	Cold Chisel	1/2 in	7.5	190.5
839299	Spoon Chisel	1/2 in	12	304.8
839334	Spoon Chisel	1/2 in	18	457.2
839335	Cold Chisel	1/2 in	18	457.2
839341	Cold Chisel	1/2 in	12	304.8
839467	Cold Chisel	1/2 in	8	203.2
839740	Spoon Chisel	1/2 in	7.3	184.15



Overhose Conversion Kits 12 Series and 15 Series - Cleco Dotco

For Use with Cleco Dotco Series rear exhaust tools

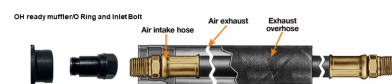
- Converts tool to OH Overhose for additional noise suppression
- For Standard 12 Series Grinders and 15 Series Drills
- 01-1030 does not include air hose
- Kits for 1/4" ID and 5/16" ID hose with differnt OH lengths 2', 4' and 8'

01-1030 Inlet Adaptor



Included 45-2687 4' Overhose

Complete Kits with OH Inlet Bolt Kit, Air Hose and Exhaust Overhose



Model	Description	Tool Series
01-1030		12-10, 12-11, 12-12, 12-13, 15LF, 15-14
45-2783	Inlet Adaptor, 45-2629 Overhose 2', 45-1408 8' Air Hose 1/4"	12-10, 12-11, 12-12, 12-13, 15LF, 15-14
45-2784	Inlet Adaptor, 45-2687 Overhose 4', 45-1408 8' Air Hose 1/4"	12-10, 12-11, 12-12, 12-13, 15LF, 15-14
45-2785	Inlet Adaptor, 45-2688 Overhose 8', 45-1408 8' Air Hose 1/4"	12-10, 12-11, 12-12, 12-13, 15LF, 15-14
45-2786	Inlet Adaptor, 45-2629 Overhose 2', 45-1508 8' Air Hose 5/16"	10-20, 10-21, 10-22, 10-25, 10-26, 10-27, 12-20, 12-21, 12-22, 12-25, 12-26, 12-27, 12-28, 15LS, 15LN
45-2787	Inlet Adaptor, 45-2687 Overhose 4', 45-1508 8' Air Hose 5/16"	10-20, 10-21, 10-22, 10-25, 10-26, 10-27, 12-20, 12-21, 12-22, 12-25, 12-26, 12-27, 12-28, 15LS, 15LN
45-2788	Inlet Adaptor, 45-2688 Overhose 8', 45-1508 8' Air Hose 5/16"	10-20, 10-21, 10-22, 10-25, 10-26, 10-27, 12-20, 12-21, 12-22, 12-25, 12-26, 12-27, 12-28, 15LS, 15LN

Air Hose and Overhose Kits 10-04,12-04 Pencil Grinders - Cleco

For Use with 10-04, 12-04 Cleco Dotco Series rear exhaust tools

- Includes Inlet Hose and Overhose Assembly

Model	Description	Tool Series
45-6000	5' Hose 4' Overhose	12-03, 12-04
45-6012	5' Hose 2' Overhose	12-03, 12-04
45-6013	5' Hose 1' Overhose	12-03, 12-04



Overhose and Spring - 10-04,12-04 Pencil Grinders - Cleco Dotco

- For use with Dotco 12R04,12R03 and 10R04 Pencil Grinders
- Includes Overhose and Spring
- Air hose shown NOT included see kits 45-6000,45-6012,45-6913

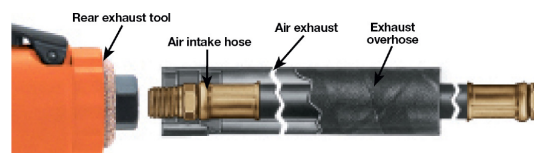
Model	Description	Tool Series	Length	Length
			ft	m
45-6001	4 feet	12-03, 12-04	4	1.2192
45-6002	2 feet	12-03, 12-04	2	0.6096
45-6003	1 foot	12-03, 12-04	1	0.3048



Air Hose and Overhose Kits - 10-10,10-11 Cleco Dotco

For Use with Cleco Dotco Series rear exhaust tools

- For 10-10 and 10-11 series tools
- Air Hose and Overhose



Model	Description	Tool Series
45-1930	45-1904 2' Overhose and 45-1409 8' Air Hose 1/4"	10-10, 10-11, 10-12
45-1931	45-1901 4' Overhose and 45-1409 8' Air Hose 1/4"	10-10, 10-11, 10-12
45-1932	45-1902 8' Overhose and 45-1409 8' Air Hose 1/4"	10-10, 10-11, 10-12

Activewivel

Available for 1/4" NPT inlet only

Model	Air Flow Volume	Max Pressure	Weight		Air Inlet Size
	Scfm	lb/in ² bar	Lb	kg	in
SW-102	25 m ³ /m	150	0.2	0.0907185	1/4 in



Lubricants



Part Number	Size	Description	MSDS Number
45-0918	1 qt. plastic	Air Tool Oil - Qt.	CPT-155
45-0980	2 oz. tube	Cleco Dotco Angle Head Grease Moly-XL 250 for Grinders/Sanders	CPT-148
45-0983	2 oz. tube	Cleco Dotco Planetary Gear Grease for Grinders & Sanders	CPT-147
513156	18 oz. can	Magnalube-G Assembly Tool Teflon Grease	CPT-145
533485	1 gal. metal	Axial Piston Motor Air Tool Oil 1 gal. can	CPT-153
539317	1 ct quart plastic bottle	Univis Pulse Tool Hydraulic Oil	CPT-157
540394	2.8oz Tube	Molykote G-N Metal Assembly Paste for Angle & Planetary	CPT-146
541445	500g Can	Rheolube 363AX-1 500g can	CPT-286
A123771	1 gal. metal	Shell Gadus S2 V220 00 16 oz can	

Under normal conditions of use, lubrication products sold separately for or used within these tools should not cause an exposure hazard. Refer to the Material Safety Data Sheet M.S.D.S. for Safety and Disposal information. M.S.D.S. sheets are available upon request.

Push Type Grease Gun

Cleco Dotco Lube sold separately

- Push Type Grease Gun
- Use with 45-0983 for Planetary Gears
- Use with 45-0980 for Angle Head Gears

Model

45-1982

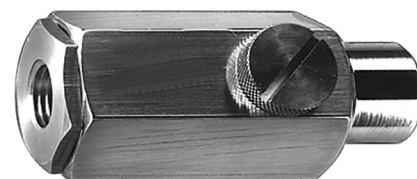


Airline Filter & Lubricator

Mounts in Hose Line.

- One ounce reservoir good for average 8-hour shift.

Model	Description	Max Pressure	Air Inlet Size
		lb/in ² bar	in
45-0201	1/4" NPTF Hose Line Lubricator	100 lb/in ² 6.9 bar	1/4 in



Cleco

Tame the Line

Assembly Tools



Material Removal



Drilling & Riveting



To learn more about Cleco's full line of tools, visit [ClecoTools.com](https://www.ClecoTools.com)

APEX

ASSEMBLY & FABRICATION TOOLS

Apex Assembly & Fabrication Tools work hand-in-hand with Cleco tools, delivering innovative solutions for enhanced efficiency, productivity and safety. To learn more about Apex's full line of tools, visit [Apex-Tools.com](https://www.Apex-Tools.com).



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