



Extreme performance
is now available in an
ergonomic family of drills.



**COOPER** Tools

Introducing The Dotco 14 Series Ergonomic Drill Family.

Extraordinary new drills, inspired by an extraordinary device called the human hand.

The familiar gray Dotco drill has long been the industry workhorse for the high-volume, high-repetition, high-precision demands of today's assembly line.

The new Dotco drills have been dramatically redesigned ergonomically to deliver increased comfort and productivity, while assuring decreased operator fatigue, potential for injury and downtime on the line.

And we not only changed the way Dotco drills look. We also changed the way they perform.

The Miracle Of Technology And Human Engineering

Technology has allowed us to make these extraordinary improvements. Rapid prototypes are now available through our proprietary design-engineering platform, so we can do modeling in real time and put prototypes in the hands of operators to get immediate feedback on ergonomic and performance criteria.

The handles of the new 14 Series are more oval, for example, because that's what fits the human hand better and ensures less slippage. Our human engineering research also led to the addition of a new rubber grip for better temperature control, because compressed air exhaust in a metal housing makes the tool cold to the hand and reduces speed and efficiency.

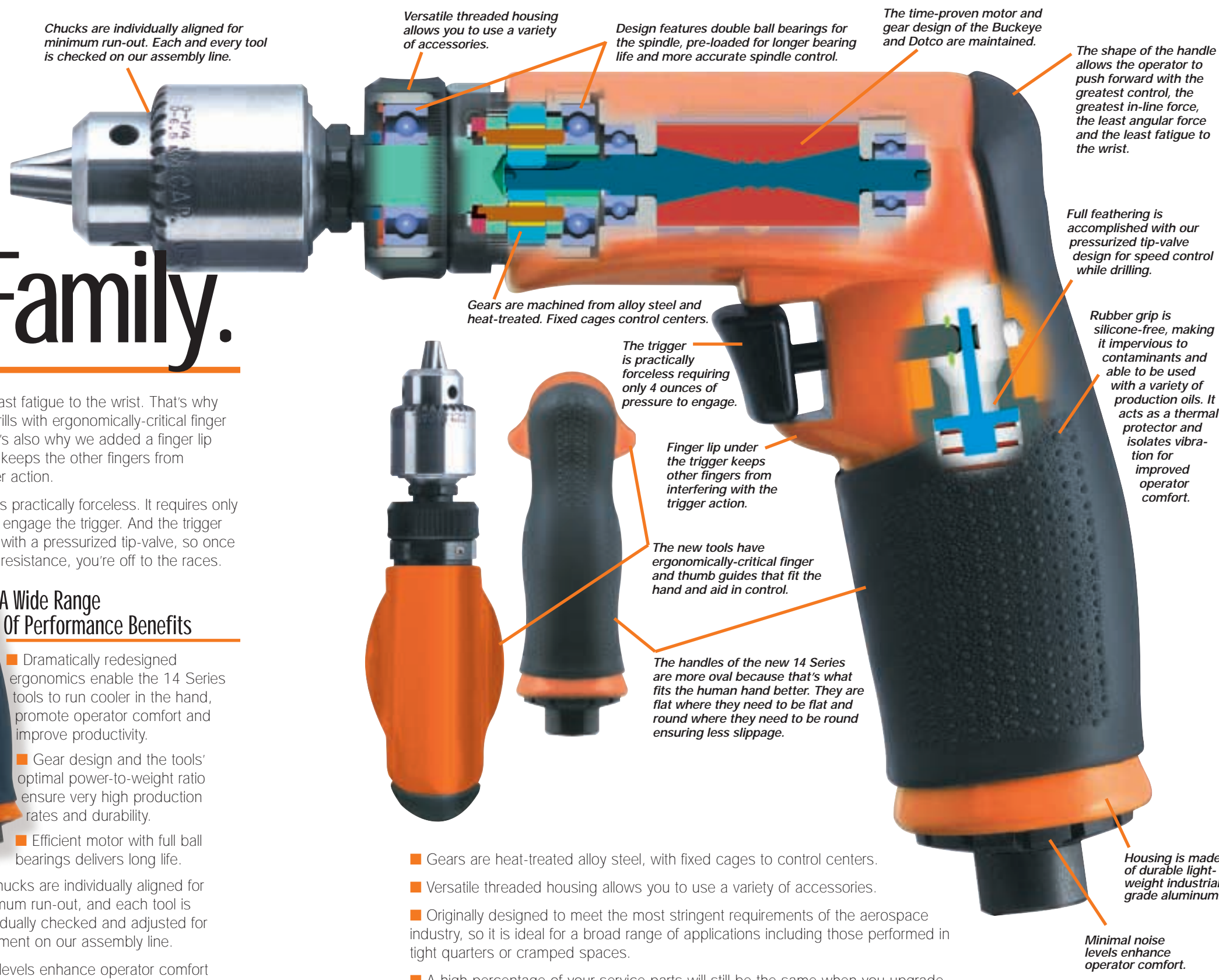
Moreover, the ideal is to have the line of action straight down the barrel so that the operator is pushing forward on the tool with the greatest control, the greatest in-line force, the least

angular force and the least fatigue to the wrist. That's why we designed the new drills with ergonomically-critical finger and thumb guides. That's also why we added a finger lip under the trigger, which keeps the other fingers from interfering with the trigger action.

The trigger, by the way, is practically forceless. It requires only 4 ounces of pressure to engage the trigger. And the trigger mechanism is designed with a pressurized tip-valve, so once you overcome the initial resistance, you're off to the races.

A Wide Range Of Performance Benefits

- Dramatically redesigned ergonomics enable the 14 Series tools to run cooler in the hand, promote operator comfort and improve productivity.
- Gear design and the tools' optimal power-to-weight ratio ensure very high production rates and durability.
- Efficient motor with full ball bearings delivers long life.
- Chucks are individually aligned for minimum run-out, and each tool is individually checked and adjusted for alignment on our assembly line.
- Minimal noise levels enhance operator comfort and minimize fatigue.
- Rubber grip is silicone-free, making it impervious to contaminants and a variety of production oils.
- Double ball bearings for the spindle, pre-loaded for longer bearing life and more accurate spindle control.
- Simple effective feathering throttle provides excellent control in the production environment.



Chucks are individually aligned for minimum run-out. Each and every tool is checked on our assembly line.

Versatile threaded housing allows you to use a variety of accessories.

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

The time-proven motor and gear design of the Buckeye and Dotco are maintained.

The shape of the handle allows the operator to push forward with the greatest control, the greatest in-line force, the least angular force and the least fatigue to the wrist.

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

Gears are machined from alloy steel and heat-treated. Fixed cages control centers.

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

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

The new tools have ergonomically-critical finger and thumb guides that fit the hand and aid in control.

The handles of the new 14 Series are more oval because that's what fits the human hand better. They are flat where they need to be flat and round where they need to be round ensuring less slippage.

Rubber grip is silicone-free, making it impervious to contaminants and able to be used with a variety of production oils. It acts as a thermal protector and isolates vibration for improved operator comfort.

- Gears are heat-treated alloy steel, with fixed cages to control centers.
- Versatile threaded housing allows you to use a variety of accessories.
- Originally designed to meet the most stringent requirements of the aerospace industry, so it is ideal for a broad range of applications including those performed in tight quarters or cramped spaces.
- A high percentage of your service parts will still be the same when you upgrade to the new tool, which saves you money on parts inventory.

Housing is made of durable light-weight industrial grade aluminum.

























Minimal noise levels enhance operator comfort.

Retro-fit Kits Available

You can retro-fit your existing Dotco and Buckeye drills to this new design. All high-wear parts are retained to cut costs.



Dotco 14 Series Ergonomic Drill Specifications

Model Number		Free Speed rpm	Drill Diameter Capacity	Weight**		Length**		Geared Chuck Size	Air Inlet Size	
With Chuck	Without Chuck			lbs.	kgs	in.	mm			
14CF Series – 0.4 hp (0.30 kW) – Non-reversible										
	14CFS90-38	29,000	1/4"	1.5	0.68	5.7	145	3/8"	1/4"	
	14CFS91-38	5,200	1/4"	1.5	0.68	5.7	145	3/8"	1/4"	
	14CFS92-38	3,800	1/4"	1.5	0.68	5.7	145	3/8"	1/4"	
	14CFS93-38	3,200	1/4"	1.5	0.68	5.7	145	3/8"	1/4"	
	14CFS94-38	2,400	1/4"	1.6	0.72	5.7	145	3/8"	1/4"	
	14CFS95-38	1,000	1/4"	1.8	0.82	6.9	175	3/8"	1/4"	
	14CFS96-38	700	1/4"	1.8	0.82	6.9	175	3/8"	1/4"	
	14CFS97-38	600	1/4"	1.8	0.82	6.9	175	3/8"	1/4"	
14CS Series – 0.6 hp (0.45 kW) – Non-reversible										
	14CSL90-38	14CSL90-40	20,000	1/4"	2.1	0.95	6.3	160	1/4"	1/4"
	14CSL98-38	 14CSL98-40	6,000	1/4"	2.1	0.95	6.3	160	1/4"	1/4"
	14CSL91-38	 14CSL91-40	5,200	1/4"	2.1	0.95	6.3	160	1/4"	1/4"
	14CSL92-38	 14CSL92-40	3,200	1/4"	2.1	0.95	6.3	160	1/4"	1/4"
	14CSL95-51	 14CSL95-40	1,300	3/8"	2.9	1.31	8.1	205	3/8"	1/4"
	14CSL97-51	 14CSL97-40	500	3/8"	2.9	1.31	8.1	205	3/8"	1/4"
14CN Series – 0.9 hp (0.67 kW) – Non-reversible										
	14CNL90-38	14CNL90-40	20,000	1/4"	2.2	1.00	6.8	173	1/4"	1/4"
	14CNL98-38	 14CNL98-40	6,000	1/4"	2.2	1.00	6.8	173	1/4"	1/4"
	14CNL91-51	 14CNL91-40	5,200	3/8"	2.4	1.08	7.2	183	3/8"	1/4"
	14CNL92-51	 14CNL92-40	3,200	3/8"	2.4	1.08	7.2	183	3/8"	1/4"
	14CNL95-51	 14CNL95-40	1,300	3/8"	2.8	1.27	8.6	218	3/8"	1/4"
	14CNL97-53	 14CNL97-40	500	1/2"	3.5	1.59	9.1	231	1/2"	1/4"

GENERAL:

Air Inlet: 1/4" NPT – Use 5/16" (7.9mm) I.D. hose.

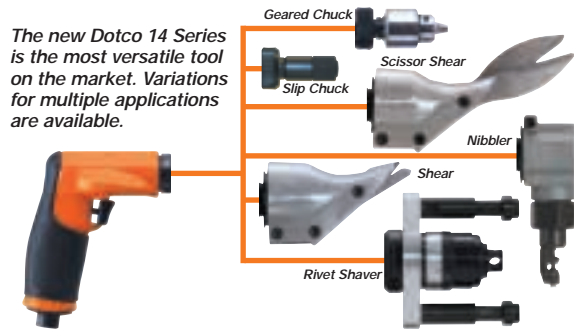
All Tools performance rated @ 90psi (620 kPa) air pressure.

STANDARD EQUIPMENT:

14CF: Jacobs geared chuck, chuck key

14CS, 14CN: Jacobs geared chuck, chuck key, dead handle (All models with a chuck opening greater than 1/2")

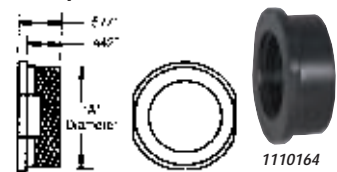
 Models indicated with the **Rapid Select** icon represent our most popular tools, and are available for fast delivery on limited quantities.



Quick Change Pressure Foot Adapter

For tools with a 1"-20 external thread

Part Number	Diameter "A"
1110164	1.375/1.373
1110165	1.437/1.435
1110166	1.501/1.499
1110167	1.626/1.623



Retrofit Kits

Retrofit your existing Dotco 15CF, 15CS, 15CN and Buckeye 21D drills to the new Dotco 14 series.

Part No.	Retrofit kit for
01-1401	Dotco 15CF series
04-1401	Dotco 15CS series
04-1402	Dotco 15CN series
01-1402	Buckeye 21D series



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