

# Hand Held Chuck Capper Operations Manual

V1.1

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## **1.1 HAND HELD CHUCK CAPPER**

#### **1.2 INTRODUCTION**

Utilizing an automatic push-to-start screwdriver, a specially designed chuck is inserted into the tool which has a rubber insert to match the container cap. Pressing firmly down upon the cap will start the tool rotating, and will stall when the preset torque is reached.

The tool is generally suspended over the process conveyor or work bench with a swing arm stand and tool balancer to help relieve operator fatigue.

Push-to-start screwdrivers are available in pneumatic and electric models of differing torque capabilities. The amount of torque required and the characteristics of the caps will determine which model fits each application.

#### **1.3 COMPLETE ASSEMBLY**

The complete pneumatic hand held chuck capper assembly is shown in figure 1-1.

#### 1.4 TOOL BALANCER

The tool balancer relieves the operator from needing to hold the weight of the push-to-start screwdriver during capping operation.

On the back side of the tool balancer is the adjustment knob for the springed tensioner.

If the tool feels heavy to the operator, rotate the knob counter-clockwise to increase the balancer's lifting power.

Conversely, if the operator has to pull down because the balancer is lifting too hard, press the spring release lever to release some of the spring's tension.



Figure 1-1 Hand Held Chuck Capper Assembly

Push-to-start

Screwdriver

Weight Adjustment Knob

Aluminum Chuck And

Insert

Figure 1-2 Tool Balancer Tool Balancer

Apex Filling Systems, LLC 1405 Lake St La Porte, IN 46350 www.apexfilling.com

#### 1.5 APPLICATION TORQUE ADJUSTMENT

Shown in figure 1-3 is the bottom of the push-tostart screwdriver with the torque adjustment cover in place. To adjust the cap application torque, first remove this cover to expose the torque adjustment dial underneath.



After removing the cover, turn the dial clockwise to increase the application torque, or counterclockwise to decrease the application torque.



Figure 1-4 Torque Adjustment Dial

Torque Adjustment Cover

Above the dial is marked for reference, as shown in figure 1-4.

#### 1.6 AIR PRESSURE ADJUSTMENT (PNEUMATIC MODELS)

Torque can also be affected by the amount of air pressure supplied to the tool.

Shown in figure 1-5 is a deluxe air filter regulator with lockout/tagout valve attached. Not all models will include all options

More pressure will increase the application speed and application torque. To increase pressure, turn the pressure adjustment knob clockwise, and to decrease, turn the knob counter-clockwise.



Figure 1-5 Main Air Disconnect and Filter Regulator

Generally, the pressure is set to 60psi for proper operation.

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#### 1.7 CHUCK INSERTION AND REMOVAL

To insert or remove the aluminum chuck, simply pull down on the chuck collet to release the hex drive lock, and insert chuck or remove from the tool.

#### 1.8 RUBBER CHUCK INSERTS

Inserts are sized per the cap, and the appropriate material is used for proper grip, and to avoid scuffing the cap. Typical inserts are made from polyurethane, vinyl, white, black and tan rubber of varying durometers. Consult APEX for determining the proper material for the application.



Figure 1-6 Chuck Assembled

The Durometer is the international standard for measuring the hardness of rubber, plastic and other NON-METALLIC materials. A durometer tool measures a compound's susceptibility to indentation, which should not be confused with durability or tensile strength as there is no inherent relationship across all compounds. Durometers are described in the American Society for Testing and Materials specification ASTM D2240. There are a variety of Durometer scales. Our products are measured using the "Shore A" Scale

Refer to the chart below for available inserts:

MATERIAL	CHARACTERISTICS	STD DUROMETER
POLYURETHANE	Exhibits excellent wear properties and leaves little to no residue or particulates ensuring an unmarked closure. Durometers up to 80-85 available on request.	45-55
VINYL	Offers grip on caps where polyurethane may slip. Generally suggested for caps that feature smooth contact surfaces.	45-55
WHITE RUBBER	Often matched to applications with white closures or caps to avoid marking. Suggested for smooth contact surfaces or minor serrations.	50-60
BLACK RUBBER	A slightly higher durometer helps extend life while offering the same level of grip as white. The color makes it ideal for dark colored caps.	60-70
TAN RUBBER	This is the hardest of the rubber inserts and is suggested for metal caps with serrations or very abrasive applications.	70-80