

BarbLock® Handheld Pneumatic Assembly Tool



BarbLock® Handheld Pneumatic Assembly Tool: Operations Manual

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1.0 Declaration of Conformity

Declaration of Conformity to the Essential Requirements of Applicable Directive 2006/42/EC

We, as an authorized representative of Saint-Gobain Performance Plastics of Williamsburg Michigan, USA certify and declare that the following BarbLock® Handheld Pneumatic Assembly Tool:

Brandname: BarbLock®

Series: BLT-PAD

Type: Handheld

Serial No.: _____

Fulfills all relevant provisions provided in applicable Directive 2006/42/EC, as well as the applicable limits and criteria outlined in the following Harmonized Standards:

- 1. ISO 11148-1:2011**, Hand-held non-electric power tools – Safety requirements –
Part 1: Assembly power tools for non-threaded mechanical fasteners

A copy of the Technical File for this product can be made available by contacting:

Customer Name: Saint-Gobain Performance Plastics

Customer Address: 11590 US 31

Customer Address: Williamsburg, MI 49690

This declaration was completed at the Saint-Gobain Facility, 11590 US-31 S. - Williamsburg, Michigan 49690 on May 16, 2013

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2.0 General Description and Intended Use of the Tool

The BarbLock® Handheld Pneumatic Assembly Tool is a pneumatic device designed to close assemblies of BarbLock® Ultra-Secure Tubing Retainer sleeves and collets, as well as AL series BarbLock®. The stainless steel jaws of the device are designed to capture and contain the pre-locked sleeve and collet assembly and, upon activation of the thumb switch, compress the assembly in to closure. If necessary, the sleeve and collet assembly can be inverted in the jaws to achieve closure. Any other use of this device is forbidden

3.0 General Safety Information

- Read and understand the safety instructions before installing, operating, repairing, maintaining, adjusting, or working near this power tool. Failure to do so can result in serious bodily injury.
- Only qualified and trained operators should install, adjust or use this tool.
- Do not modify this tool. Modifications can reduce the effectiveness of safety measures and increase the risk to the operator.
- Do not discard these instructions; give them to the operator.
- Do not use this tool if it has been damaged.
- This tool shall be inspected periodically to ensure that all labels and markings are legible. Contact Saint-Gobain for replacement markings if necessary.
- Do not use this tool if warning labels are removed or illegible. Contact Saint-Gobain for replacement labels.

4.0 Projectile Hazards

- Ensure all guards are in place and functional before using this tool.
- Disconnect the tool from pressurized air supply when not in use, and when changing jaws or adjusting.
- Always wear impact resistant eyewear with side shields when using this tool.
- Be aware of failure of the work piece or tools.
- Be aware of all bystanders when using this tool.
- Never involve another person in the closing process.
- Do not disable or remove any safety devices. They are there for your protection.
- Damage may result if the sleeve, collet and jaws of the BarbLock® assembly are not compatible.

5.0 Operating Hazards

- Use of this tool can expose the operator's hands to hazards including crushing, impacts, cuts and abrasions. Be aware of all pinch points on this device.
- Operators and maintenance personnel shall be physically able to handle the bulk, weight and power of the tool.
- Hold the tool correctly; be ready to counteract normal or sudden movements.
- Maintain a balanced body and secure footing.
- Release the start and stop device in case of interruption of the power supply.
- If the device is fixed to a suspension device, make sure it is secure.
- Beware of the risk of crushing or pinching.

6.0 Repetitive Motions Hazards

- When using this tool, the operator can experience discomfort in the hands, arms, shoulders, neck or other parts of the body.
- If the operator experiences persistent pain, throbbing, aching, tingling, numbness or stiffness, these symptoms should not be ignored. Consult a qualified health professional.

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7.0 Workplace Hazards

- Slips, trips and falls are major causes of workplace injury. Be aware of slippery surfaces caused by use of the tools and also of trip hazards caused by the air line.
- This tool is not intended for use in potentially explosive atmospheres.

8.0 Additional Safety Instructions

- Air under pressure can cause severe injury. Always shut off the air supply, drain hose of air pressure, and disconnect the tool from air supply when not in use, before changing jaws, or when doing maintenance. Never direct air at yourself or anyone else.
- Whipping hoses can cause severe injury. Always check for damaged or loose hoses and fittings.
- DO NOT EXCEED 120 psi (8.25 BAR)
- Never carry an air tool by the hose.
- Only grasp the tool by the designated handle. Never grasp the tool by the body.
- Do not attempt repairs to this tool. BarbLock® Tools are guaranteed for life against material defects.
- In the event of an emergency or malfunction, release the actuation button, and disconnect the air supply. Maintenance should never be attempted when the device is live.

Take Note of all Pinch Points on the Device
They will be Marked with the Following Label:



Disclaimer – Saint-Gobain endorses the proper use of all BarbLock® Tools and products. Improper use of BarbLock® tools products not addressed within the scope of this manual may result in serious injury. Always read, understand, and follow all directions related to the product you are using. Never use tools while impaired.

Important Note – The diagrams and pictures in this manual show the Handheld PAD without its guards for the sake of clarity. This tool should never be operated without all guards functional and in place.

9.0 Installing Upper and Lower Jaws in your Handheld Pneumatic Assembly Tool

Included with your Handheld Pneumatic Assembly Tool are one or more sets of jaws used to close different diameters of BarbLock® Ultra-Secure Tubing Retainers. These jaws are machined out of stainless steel, and held onto the tool by an Allen Head screw. Figure 1 shows the difference between an upper jaw and a lower jaw.

9.1 The steps necessary to install a jaw set in your Handheld Pneumatic Assembly Tool are as follows:

1. Confirm that the air supply line is disconnected. If not, disconnect the line.
2. Depress the thumb switch to ensure no residual pressure is in the tool.
3. Open the guard around the jaws.
4. If there is a jaw set already installed, remove it by removing the two Allen Head screws with the Allen wrench included with your tool, and pulling each jaw straight outward.
5. Before installing the new jaw set, confirm that there are two pins on the jaw seat on either side of the bolt hole. These pins aid in holding the jaw set. If they are missing, contact Saint-Gobain.
6. Slide the new jaw set over the dowel pins in the orientation shown in Figure 2. Replace the Allen Screws, taking care not to over tighten them.
7. Close the guard, reattach the air supply, and your tool is now ready to use.



Upper Jaw (Left)

Lower Jaw (Right)

Figure 1: a typical Upper and Lower Jaw set



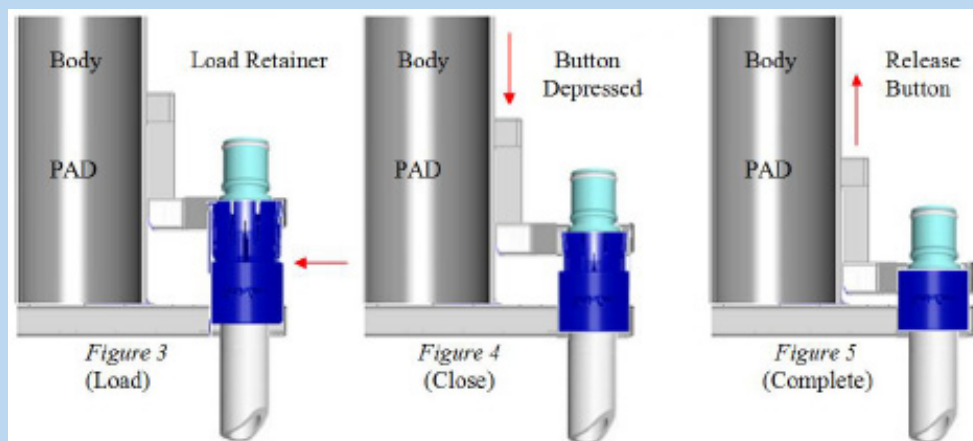
Figure2: Proper orientation of Jaw Set

10.0 Instructions for Closing a BarbLock® Retainer

After complying with all the safety regulations and installing the specific jaw set for your BarbLock® Retainer application, and attaching a source of pressurized air not exceeding 120 PSI (8.25 BAR), the device can be used to close a BarbLock® Retainer. The procedure to close a BarbLock® Retainer is as follows:

10.1 The steps necessary to install a jaw set in your Handheld Pneumatic Assembly Tool are as follows:

1. Build a BarbLock® sleeve, collet, tubing and fitting assembly and place the assembly in the saddle of the lower jaw, as shown in Figure 3.
2. Ensure the base of the collet sits flat against the support shelf.
3. Grasp the bottom of the tubing outside the PAD with your free hand (Always occupy both hands during assembly).
4. Depress the trigger button with your thumb. The jaws should begin closing (Figure 4).
5. When the top of the collet is flush with the top of the sleeve, and the jaws have stopped, the assembly is complete. Release the trigger button. The jaws will move upward (Figure 5). Never grasp the PAD by the body.



ALWAYS WEAR SAFETY GLASSES WITH SIDE SHIELDS

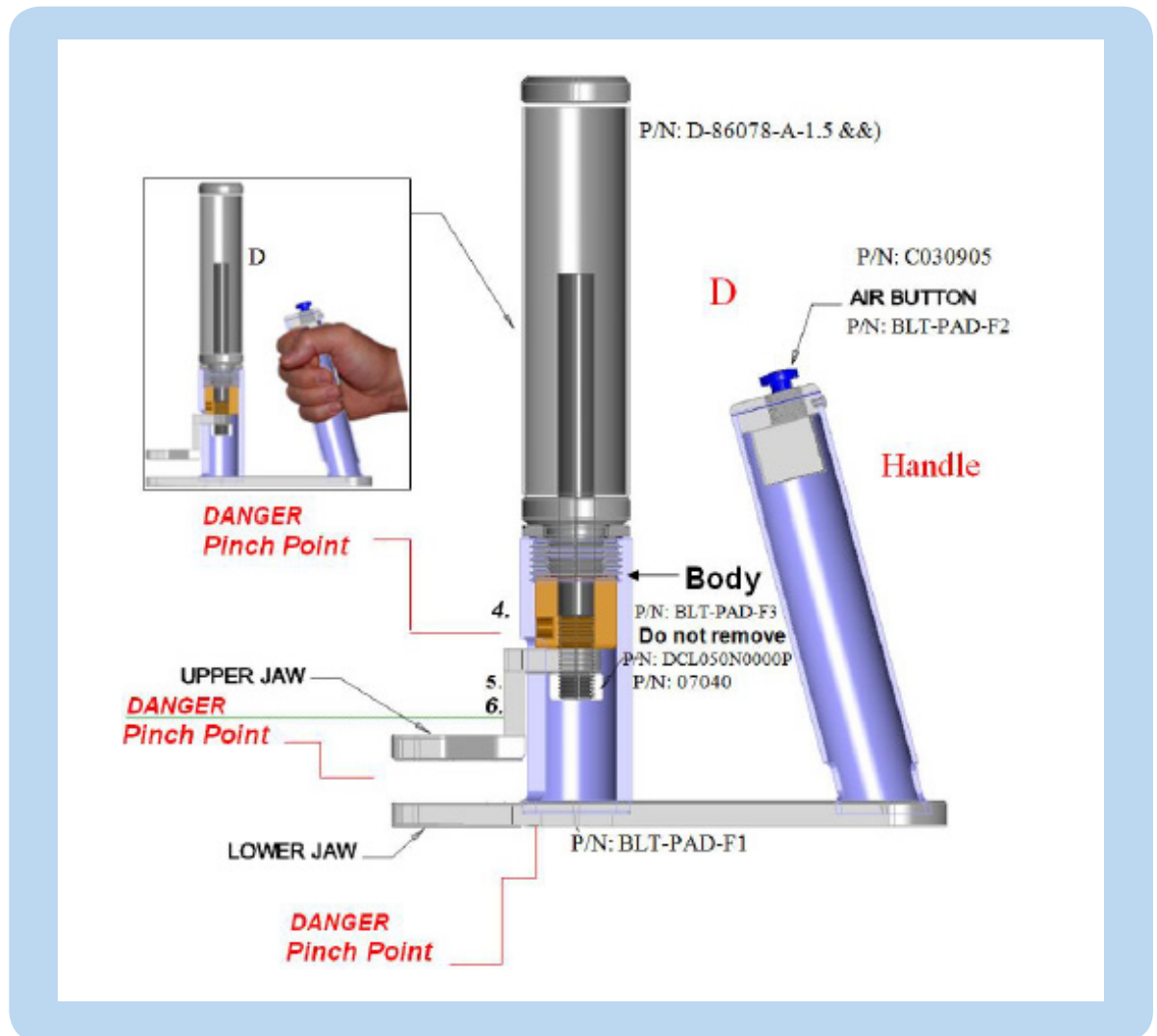
NEVER PLACE FINGERS BETWEEN THE JAWS

NEVER GRASP THE PAD BY THE BODY

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11.0 Pinch Points and PAD Cutaway

It is important to remember that the Handheld PAD is an industrial tool. If misused, it can and will cause serious injury. Below is a labeled cutaway of the device showing the pinch points of the device. Care should be taken to avoid these points.



12.0 Maintenance and Adjustments

Proper maintenance of your PAD will lead to a long service life. The following are rules to ensure the longevity of your product:

- Never exceed a supply pressure of 120 PSI (8.25 BAR)
- Make sure clean, dry air is supplied to the PAD
- A moisture trap is recommended in your air system
- NEVER oil the air cylinder. It is designed to be maintenance free

Adjusting the speed at which your PAD closes is critical to safe operation. The device is equipped with a soft start valve that can be adjusted per the following procedure:

PCV Series

- Mounted on the supply port of the power valve or on the common supply of associated power valves.
- Initial flow into the power valve is controlled by the needle valve assembly.
- When 2/3 of the system pressure is achieved the spring is compressed allowing immediate increase to full system pressure.
- When the system is pressurized after an emergency stop all cylinders will return to the rest position.

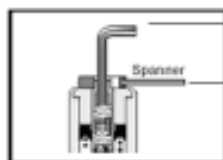
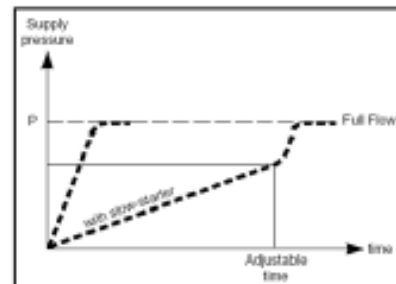
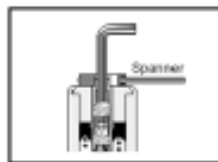
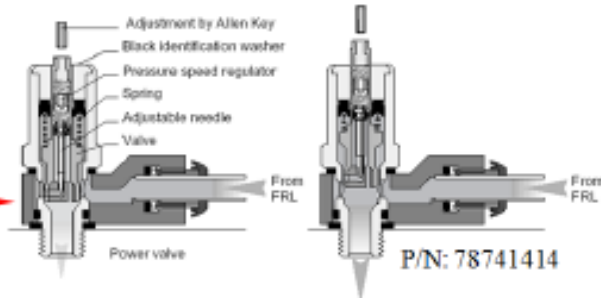
Pressurization speed

Adjustment of the needle valve to regulate the air flow controls the time taken to pressurize the system.

Adjustment

1. Secure the piston with a 5.5mm (7/32") open end wrench.
2. Adjust the needle (valve opening time) using a hex key while holding the piston with the open end wrench.
3. A 1.5mm hex key is required. Wrench flats. Maximum torque for hex key: 8 in. lb

TOP



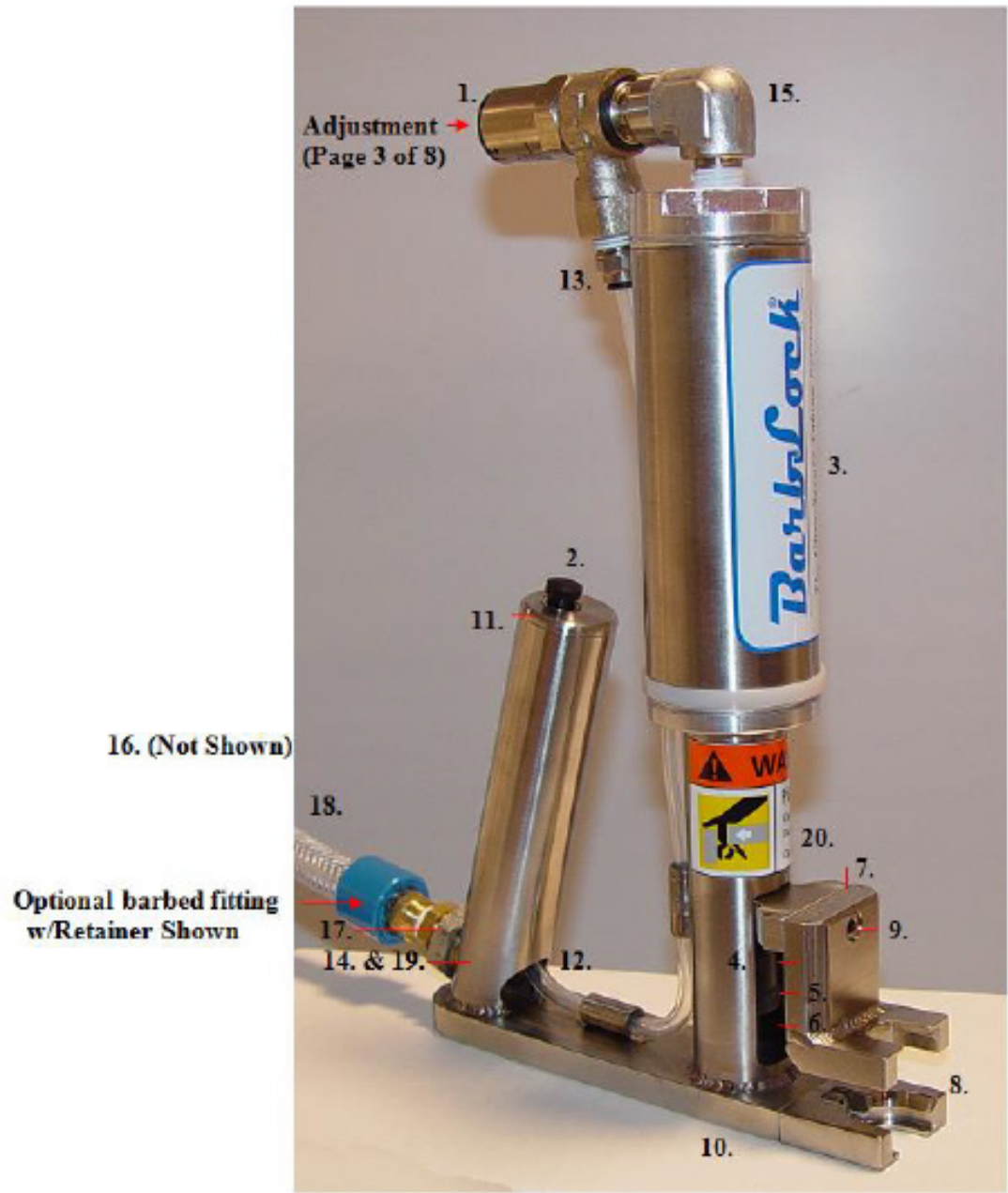
The size of the Allen Key is 2.5 mm

The size of the Spanner Wrench is 5.5 mm
(A small adjustable wrench can be used)



Actual Position on PAD

13.0 Parts List and Locations



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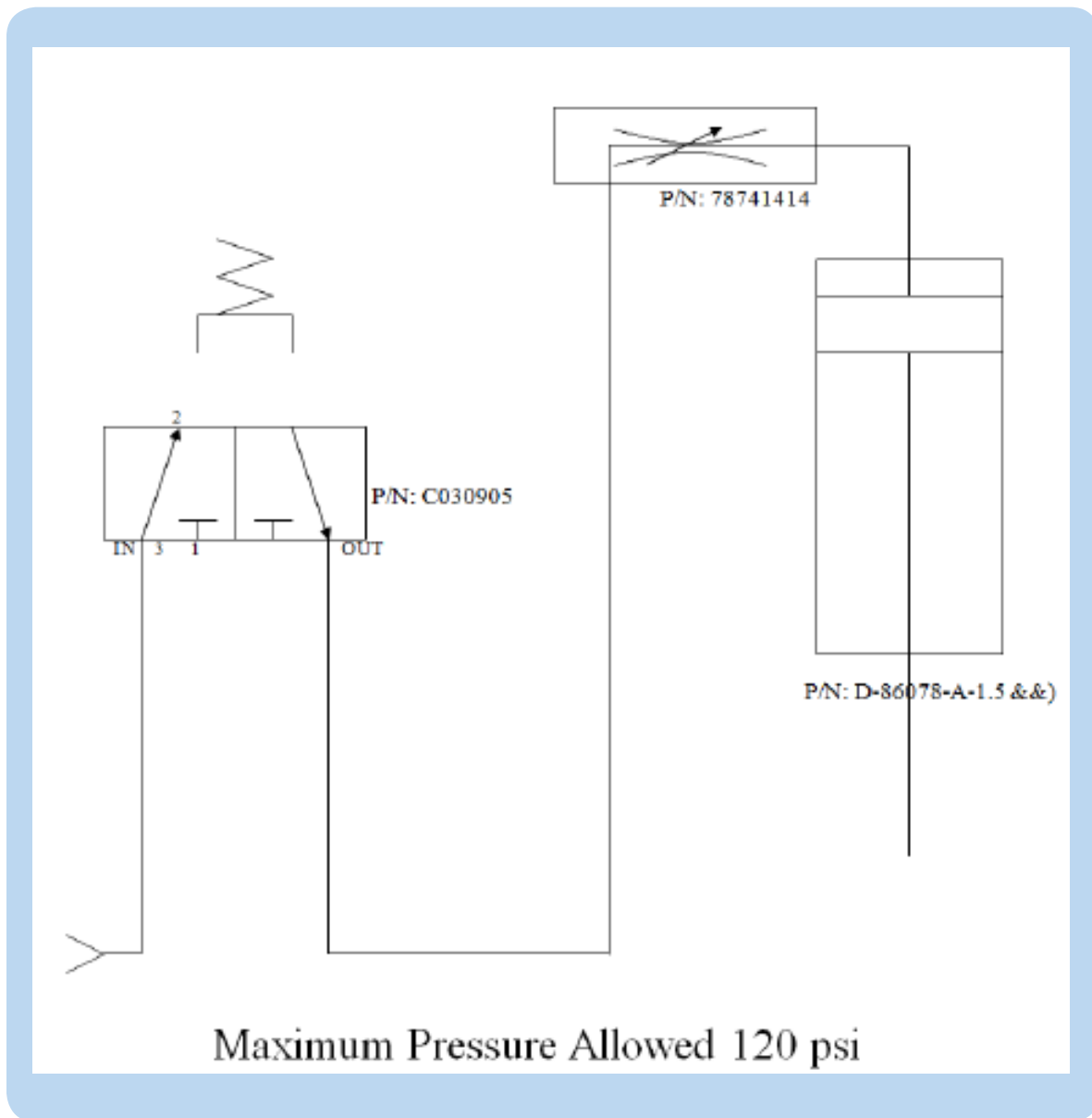
13.0 Parts List and Locations Continued

1. Pressure Over Time Valve (Page 3 & 4)
 - a. Legris Connectic
 - b. P/N: 78741414
 - c. Pressure Rating 170 psi
2. Two Position, 3 Way, 3 Port, Push Button (Page 2 or 4)
 - a. Pneumadyne Inc.
 - b. P/N: C030905
 - c. Pressure Rating 170 psi
3. Air Cylinder (Page 2 or 4)
 - a. Bimba Manufacturing Company
 - b. P/N: D-86078-A-1.5 &&) (Custom)
 - c. Pressure Rating 170 psi
4. Bearing/Guide (Page 2 or 4)
 - a. Twin Bay Medical, Inc.
 - b. P/N: BLT-PAD-F3
 - c. Material: Brass (Custom)
5. Allen Nut ½-20 (Page 2 or 4)
 - a. Allen (HOLO-KROME)
 - b. P/N: 07040
 - c. Material: Steel
6. Lock Washer ½" (Page 2 or 4)
 - a. Hodell-Natco
 - b. P/N: DCL050N0000P
 - c. Material: Steel
7. Dowels 3/16" Dia. (x-4) (Jaw Retainer) (Page 2 or 4)
 - a. Fastenal
 - b. P/N: BLT-PAD-F4
 - c. Material: Stainless Steel
8. Jaw Set (Page 8) This item is only supplied when ordered within the PAD part number.
 - a. Twin Bay Medical, Inc.
 - b. P/N: BLT-JAW-125-625
 - c. Material: 302-Stainless Steel
9. 10/32-SHCS-SS (x-2) (Jaw Retainer) (Page 8)
 - a. Fastenal
 - b. P/N: 10-32 SHCS SS
 - c. Material: 302-Stainless Steel
10. Frame (Page 4 or 4)
 - a. Twin Bay Medical, Inc.
 - b. P/N: BLT-PAD-F1
 - c. Material: 302-Stainless Steel
11. Cap/Cover Metal (Page 4 or 7)
 - a. Twin Bay Medical, Inc.
 - b. P/N: BLT-PAD-F2
 - c. Material: Stainless Steel
12. Tubing 1/8" ID x ¼" OD (Page 4 or 7)
 - a. Parker (Fluid Connectors Group)
 - b. P/N: U-42-0250
 - c. Material: Urethane
 - d. Pressure Rating 170 psi
13. Push to Connect Straight ¼" NPT x ¼" (Page 4 or 7) This item may be subtitled with a std. fitting and retainer.
 - a. Parker (Fluid Connectors Group)
 - b. P/N: W68ML-4-4 (BL135125 Retainer)

13.0 Parts List and Locations Continued

14. Push to Connect 90 Degree 1/4" x 1/4" (Page 4 or 7)
 - a. Parker (Fluid Connectors Group)
 - b. P/N: W369ML-4-4
 - c. Material: Composite
15. Stainless Steel Street Elbow w/1/4" NPT x 1/4" FPT (Page 4 or 7)
 - a. Neff Eng.
 - b. P/N: 76040781
 - c. Material: Stainless Steel
16. Quick Connector (Page 4) Provided to customer to attach to their air supply.
 - a. Twin Bay Medical, Inc.
 - b. P/N: BLT-PAD-F6
 - c. Material: Brass
17. Lock Nut Connector (Page 4 or 7)
 - a. Twin Bay Medical, Inc.
 - b. P/N: BLT-PAD-F7
 - c. Material: Steel (Plated)
18. Street L Fitting 1/4" x 1/4"NPT (Page 4 or 7)
 - a. Parker (Fluid Connectors Group)
 - b. P/N: BLT-PAD-F8
 - c. Material: Brass
19. Tubing 3/8" ID x 5/8" OD (Page 4 or 7)
 - a. Parker
 - b. P/N: 7583-381
 - c. Material: Reinforced PVC
 - d. Pressure Rating 170 psi
20. Pinch Warning Sticker (Page 4 or 7)
 - a. Twin Bay Medical, Inc.
 - b. P/N: BLT-PAD-F9
 - c. Material: Vinyl

14.0 Air Schematic of Handheld PAD



15.0 Rendering of Handheld PAD with all Guards in Place

