

Saint-Gobain BarbLock® Assembly Tool Part Number BLT-HHPAD



BarbLock® Assembly Tool: Operations Manual

Table of Contents

Important Notice	3
Tool Identification	4
General Description	4
Warnings and Safety Labels	4
Tool Controls and Features	6
Jaw Installation and Removal	8
Operation of the BarbLock® Assembly Tool	9
Air Supply Connection	11
Operational and Safety Checks	12
Noise Emissions	12
Vibration	12
Tool Balance Connection and Use	12
Residual Risks	13
Use and Storage Conditions	13
Cleaning	13
Maintenance and Service	13
Jaw Size Reference List	14
Rail Greasing Procedure for BarbLock® Assembly Tool	14
Disassembly	15
Greasing the Carriage	16
Reassembly Procedure	17
Functional Confirmation	17
Troubleshooting	18
Tool Physical Details	19
Copy of CE Mark Declaration Of Conformity	20

BarbLock® Tabletop Pneumatic Assembly Tool: Operations Manual

1.0 Important Notice



Read this before using the Saint-Gobain Performance Plastics BarbLock® Assembly Tool

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

All users must read the entire BarbLock® Assembly Tool Operating Instructions before installing, using or maintaining the tool. Always keep the Operating Instructions at hand when using the BarbLock® Assembly Tool.

IMPORTANT: It is the user's responsibility to ensure the suitability and safety of Saint-Gobain products for all intended uses and that the materials to be used comply with all applicable medical regulatory requirements. Saint-Gobain assumes no responsibility for any product failures that occur due to misuse arising out of the design, fabrication or application of the products into which the materials are incorporated. Saint-Gobain cannot assume liability if the BarbLock® Assembly Tool is subjected to improper use or operation. Saint-Gobain is not liable for any damages resulting therefrom. The operator bears the sole risk. Proper use also includes compliance with operating, inspection, and maintenance conditions prescribed by the manufacturer. Non-compliance with the warnings in the operating instructions and installation instructions, in particular, constitutes improper use of the equipment.

There is only one user serviceable parts inside the Tool, described in the section beginning on page 19. Accessing the inside of the tool for any other reason may void the warranty. Contact Saint-Gobain Performance Plastics if the product fails to operate correctly. Do not continue to use a product that is not operating correctly, as this could result in injury to the operator or others, or damage to the product.

Intended Use

The BarbLock® Assembly Tool was exclusively developed, constructed, and built for the industrial and commercial purpose of closing/locking the BarbLock® and Pure-Fit® SIB® retainers on a barbed fitting and flexible tubing connection using pneumatic power. The BarbLock® Assembly Tool shall not be used in any clinical procedures, or for diagnostic purposes. The system is exclusively designed for the purpose stated above. Any other application above or beyond this, or any modifications to the unit without the written permission of the manufacturer, is considered as improper use of the device, which could result in injury to the user or damage to the tool.

BarbLock® Assembly Tool: Operations Manual

2.0 Tool Identification

BarbLock® Assembly Tool

Model Number BLT-HHPAD

Saint-Gobain Performance Plastics

11590 US-31

Williamsburg, MI 49690

Phone: (888) 387-0067

Website: www.biopharm.saint-gobain.com

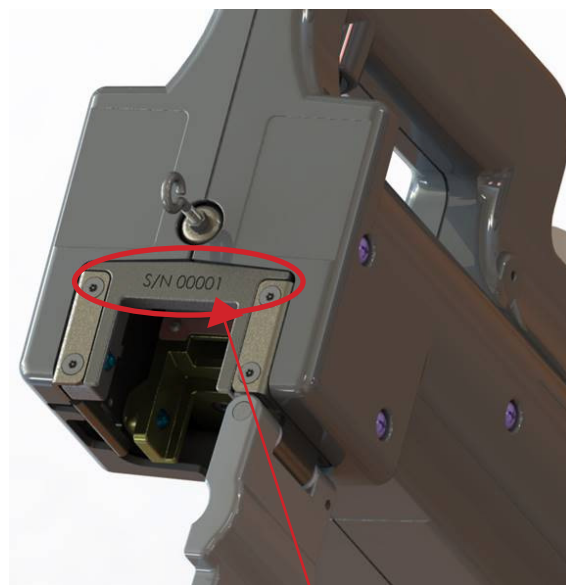


Figure 1: Tool serial number location

3.0 General Description

The Saint-Gobain BarbLock® Assembly Tool is a handheld portable pneumatic device used to crimp (install) the BarbLock® onto a barbed fitting and flexible tubing connection. This creates an ultra-secure connection that is more resistant to leakage than any other available technology. Figure 2 below shows some of the Saint-Gobain products with which the BarbLock® Assembly Tool is used.



Figure 2: Representative BarbLock® Components

4.0 Warnings and Safety Labels

This user documentation contains WARNINGS concerning the safe use of the product. See Definition below.

WARNINGS



WARNING indicates a hazardous situation which, if not avoided, could result in serious injury to the user or bystanders, or damage to the tool. It is important not to proceed until all stated conditions are met and clearly understood.

4.0 Warnings and Safety Labels Continued



WARNING – Safety Glasses Required: any person who is operating, or is in the immediate vicinity of someone who is operating, a BarbLock® Assembly Tool shall wear eye protection that meets or exceeds ANSI Z87.1. Due to the significant forces generated by the BarbLock® Assembly Tool, there is a possibility of personal injury from projectile material that may come from the tool in the event of a failure of a BarbLock® component.

There are seven (7) adhesive labels attached on the outer case of the tool. The labels are presented and described in this section.

1. Saint-Gobain brand name and symbol (Figure 3)
2. Product identification and company information (Figure 4)
3. This User/Operator manual contains critical information that must be understood by the user in order to prevent injury to the user or damage to the tool. (Figure 5)
4. There are pinch points in the tool that must be understood by the user in order to avoid injury. (Figure 6)
5. There is potential for projectile injury. Use of protective eyewear is mandatory to avoid injury. (Figure 7)
6. Pressure limit for the tool air supply is 100 psi (0.7 MPa). Exceeding this limit may damage the tool which could lead to poor performance and unsafe operation. (Figure 8)
7. CE mark, indicating the tool has passed rigorous safety and performance testing. (Figure 9)



Figure 3: Logo

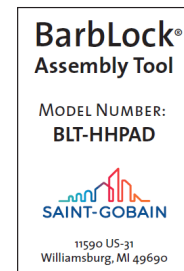


Figure 4: Product Identification



Figure 5: User/Operator manual



Figure 6: Pinch Point



Figure 7: Protective Eyewear

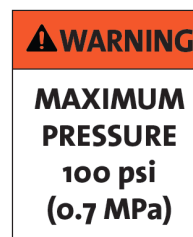


Figure 8: Pressure Limits



Figure 9: CE Mark

5.0 Tool Controls and Features

The information below details the location and function of all operator controls and features of the BarbLock® Assembly Tool.



WARNING – Pinch Hazard

Trigger (actuation button) – this control will cause the lower jaw of the tool to move toward, and close against, the upper jaw whenever the tool is connected to an air supply and the Safety Cover is closed. Releasing this control will cause the lower jaw to return to its original (opened) position. The extending and retracting motions of the lower jaw pose a pinch risk to fingers. Users must keep fingers away from the jaw area during operation of the tool. Failure of the pneumatic switch behind the trigger could cause unexpected sudden motion of the lower jaw. Users should remain alert to this possibility and keep fingers away from the jaw area. If this is observed, the tool should be disconnected from the air supply and removed from the work area. When the jaws are in the closed position, a pinch risk is present in gaps just below the lower jaw (see Figure 11). Keep fingers away from this area, since it is a pinch hazard when the lower jaw returns to its open position.

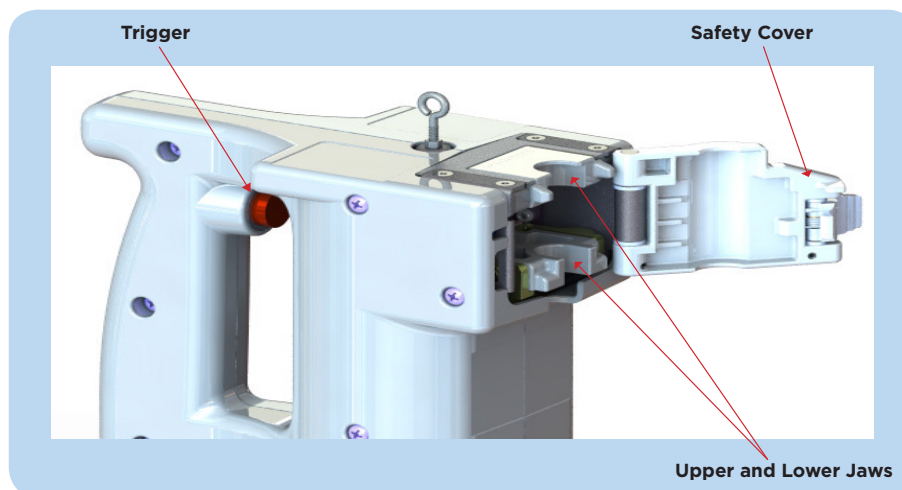


Figure 10: Safety cover open and jaws in open position.

Safety Cover and Latch – the Safety Cover must be open to load the pre-assembled BarbLock® product into the jaws. The Safety Cover must be closed during operation of the tool. This is in order to prevent user access to the jaw area while the BarbLock® is being closed, because of the risk of injury to fingers. The Safety Cover also provides support to the BarbLock® while it is being crimped in place by the moving jaws. The latch secures the Safety Cover in the closed position whenever it is engaged. There is an audible snap sound when the Safety Cover closes and the Latch engages. The Safety Cover engages an interlock switch while it is closed. The interlock prevents movement of the jaws any time the Safety Cover is not closed.

5.0 Tool Controls and Features Continued



WARNING – Pinch Hazard

If the Safety Cover is closed and there is no product in the tool, there is risk of injury to any fingers inserted into the openings that are normally occupied by the tubing and connector. The tool is not able to distinguish the absence of BarbLock® components, so the jaws will move any time the Safety Cover is closed and the trigger is pressed. Keep fingers away from all openings in the area of the jaws. Failure to do so could result in a serious pinching injury to the fingers.

Jaws – each jaw pair is designed to fit specific BarbLock® part numbers. Refer to the reference list of jaw sizes at the end of this document. Each jaw is marked with its part number. Jaws are to be used as a matched set, meaning the same part number for the upper and lower jaws. There is an “A” suffix in the upper jaw part number and a “B” suffix in the lower jaw part number. Mismatch of jaws is very likely to result in failure to close the BarbLock® and/or damage to the BarbLock®.

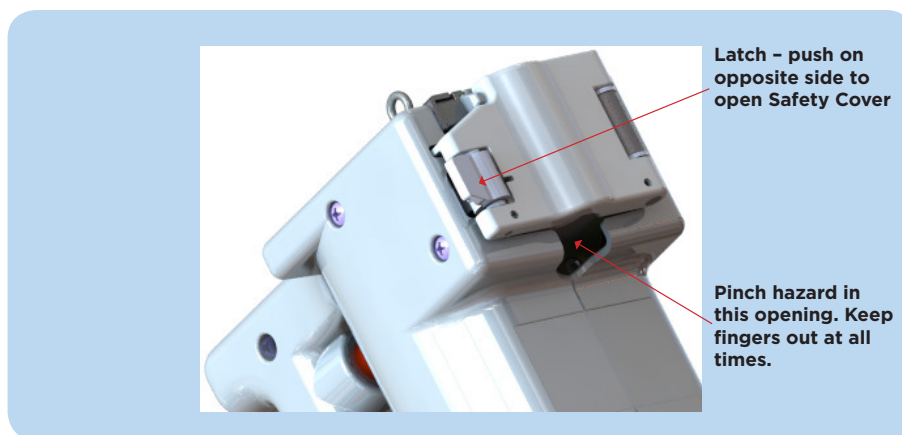


Figure 11: Safety Cover in closed position.

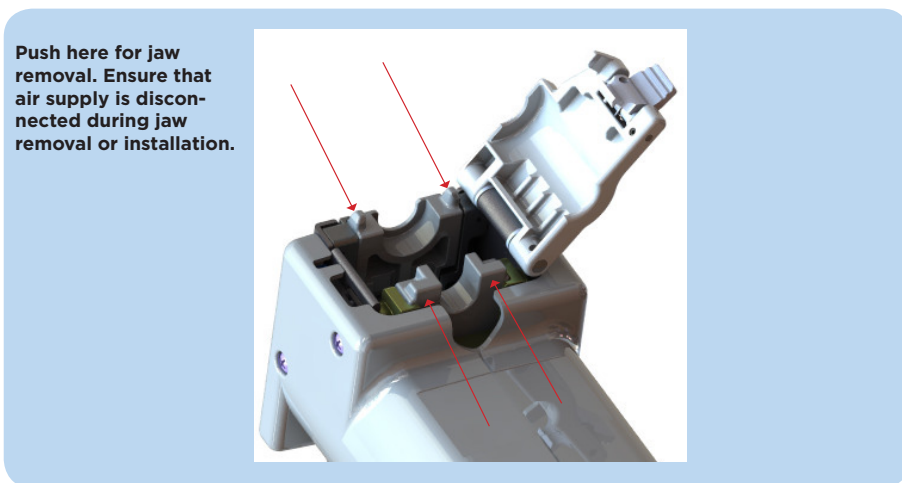


Figure 12: Jaws

6.0 Jaw Installation and Removal



WARNING – Pinch Hazard

Jaw Installation and Removal - disconnect the air supply before installing or removing the jaws. Failure to disconnect the air supply could result in unexpected closing of the jaws which could cause pinching injuries to fingers. It could also cause damage to the Assembly Tool. The user is to make certain that the jaws are fully seated in their respective carriers before re-attaching the air supply and actuating the Assembly Tool by depressing the trigger.

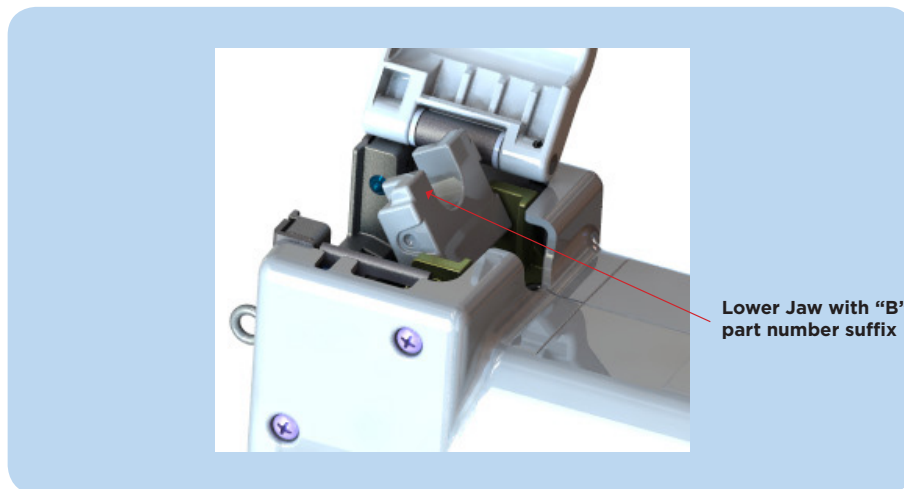


Figure 13: Lower Jaw in rotated position, for entry or removal from Lower Jaw Carrier. Upper Jaw not present in this image.

Jaws are installed in their respective carriers (“A” suffix on the Jaw part number for the upper position, and “B” suffix on the Jaw part number for the lower position) by approaching the carrier with the “tail” of the jaw leading the approach and with the jaw at an angle of roughly 30° (see figure 13). After the “tail” has entered the locking slot in the carrier, the jaw is rotated into the carrier seat (parallel with carrier). The jaw will snap into place when it is correctly loaded. It is not possible to load the jaw backwards, nor is it possible to put the jaw into the wrong carrier. Snapping the jaw into place requires only moderate force exerted by the fingers. Removal of the jaws begins with pushing on the two “ears” to disengage the detent (figure 12). The jaw is then rotated and lifted out of the carrier.



Figure 14: Example of Upper Jaw, showing part number with suffix letter “A” to indicate upper position.

BarbLock® Tabletop Pneumatic Assembly Tool: Operations Manual

6.0 Jaw Installation and Removal Continued

Assembled jaws are retained in their respective Carriers by a pair of ball-detent devices. Jaws are removed one at a time by pushing with fingers or thumbs (as indicated by the red arrows in Figure 12) to release the detent mechanism. Each jaw will rotate toward the other and then can be lifted out of the tool. They are installed by reversing the removal operations. Do not use force or tools to install or remove them. Doing so could damage the BarbLock® Assembly Tool. If the jaws do not install easily, then it is very likely they are not in the correct position or orientation.

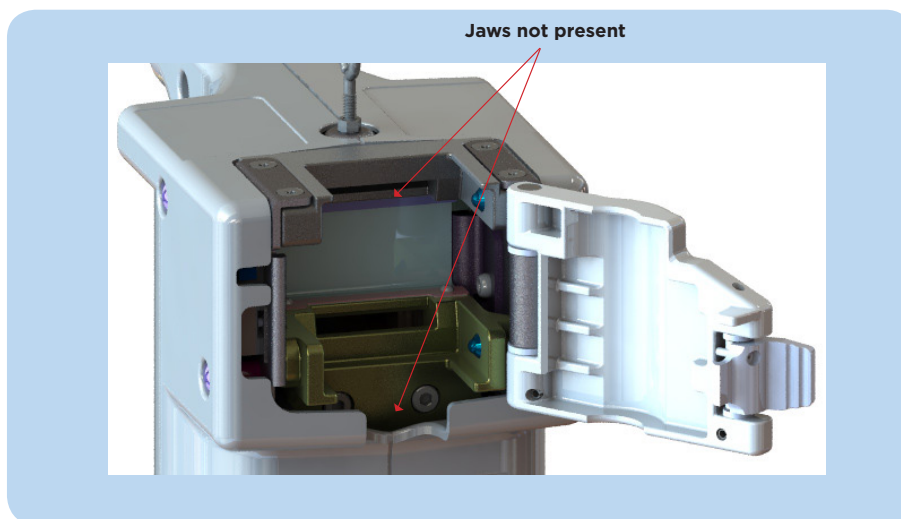


Figure 15: Upper and Lower Jaw Carriers. Jaws are not present in this image.

7.0 Operation of the BarbLock® Assembly Tool



WARNING – Pinch Hazard: be aware that if the lower jaw carrier has been manually pushed away from its fully open position while the air supply is disconnected, it will immediately return to the fully open position as soon as air pressure is re-applied to the tool. This will happen no matter if the Safety Cover is closed or not! Be aware of the possibility that the lower jaw/carrier may move while connecting the tool to the pressurized air supply. Keep fingers and hands away from the area of the jaws and carriers while the air supply is being connected.

Operation of the BarbLock® Assembly Tool: The tool is designed to be used by a single operator. To begin the BarbLock® assembly sequence, the operator will pre-assemble the BarbLock® components onto the tubing. Refer to the diagram below for general information. Isopropyl alcohol is allowable as a lubricating agent for the pre-assembly operation only. The pre-assembly is then installed into the jaws of the Assembly Tool. Do not apply any fluid to the BarbLock® components after they have been loaded into the tool. The fluid could contaminate sensitive components and shorten life of the Assembly Tool. This manual is provided as a guide for operation of the BarbLock® Assembly Tool. Contact Saint-Gobain Performance Plastics if additional information regarding pre-assembly of BarbLock® components is needed. Figure 16 below illustrates a pre-assembled BarbLock® loaded into the jaws of the Tool. Note that the flange of the barbed fitting is above the “rim” of the upper jaw. The Safety Cover is then closed and latched.

BarbLock® Assembly Tool: Operations Manual

8.0 Operation of the BarbLock® Assembly Tool



WARNING – Pinch Hazard: do not leave hands or fingers in close proximity to the Safety Cover, the Latch, or the BarbLock® components that are loaded into the tool. Leaving fingers in close proximity to the moving parts of the Assembly Tool could result in pinching injury to fingers.

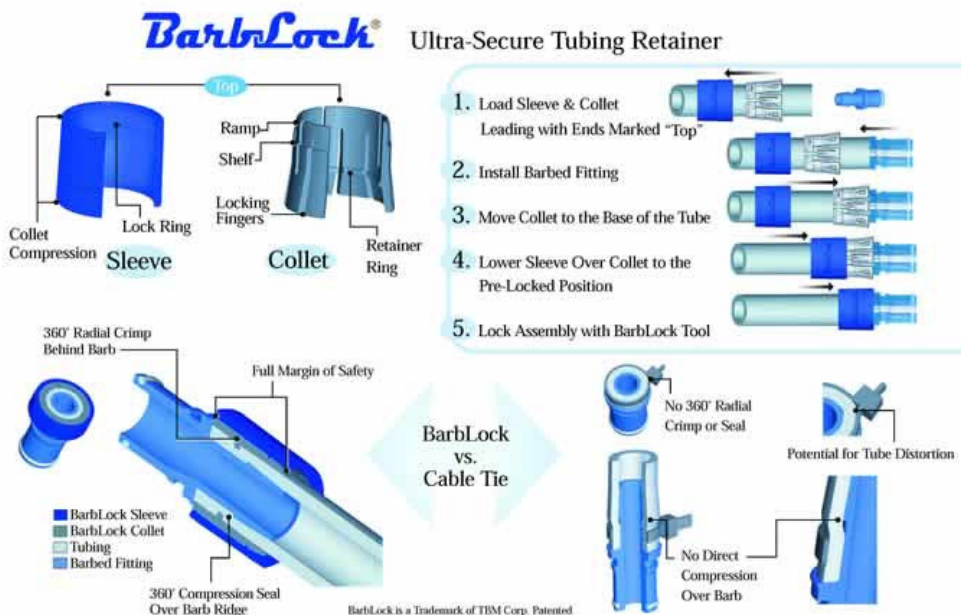


Figure 16: BarbLock® Assembly

The operator grips the tool handle with either the right or left hand, with the index finger in proximity to the Trigger. The operator then pushes and holds the Trigger - the Assembly Tool will drive the BarbLock® components to a fully closed and locked position. There is no need for the operator to provide intervention to the BarbLock® assembly.



WARNING – Pinch Hazard: after the BarbLock® has fully closed, the operator can release the Trigger. This will cause the jaws to retract to the full open position. Do not place fingers or hands near the Safety Cover, Latch or the BarbLock® components until after the jaws have returned to the fully open/retracted position. Failure to keep hands and fingers away from the working area of the tool while the jaws are retracting could result in a pinch injury. Once the jaws have returned to the fully open/retracted position, the operator will then apply light force to the back side of the Latch to open the Safety Cover. The completed BarbLock® assembly can then be removed from the tool.

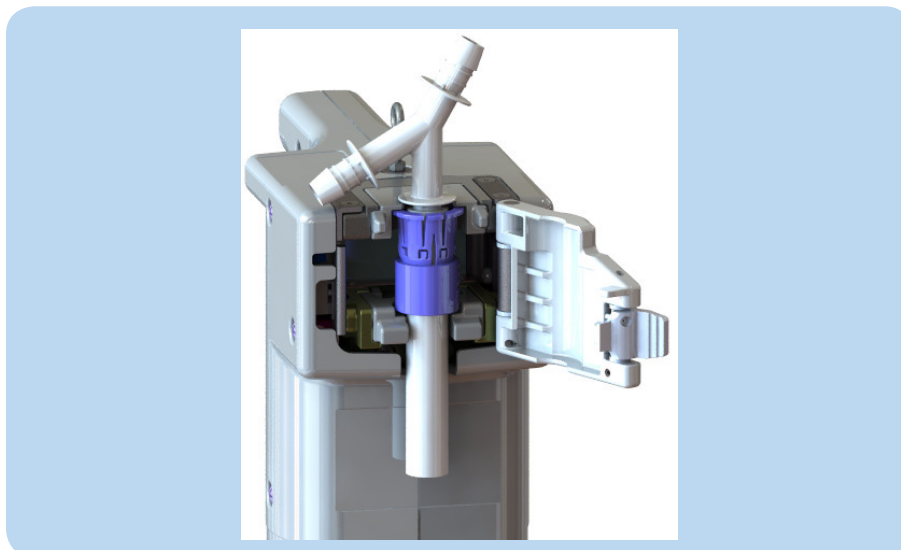


Figure 17: Pre-assembled BarbLock® loaded in Tool. Safety Cover in open position.

BarbLock® Tabletop Pneumatic Assembly Tool: Operations Manual

9.0 Air Supply Connection

The BarbLock® Assembly Tool is powered by compressed air that enters the tool through a 1/4" female NPT fitting behind the handle. The air supply is to be clean and dry, without lubrication, in order to prevent contamination of the BarbLock® products being assembled by the Tool. The maximum allowable and optimal supply pressure is 100 psi (0.7 MPa). Exceeding the air pressure limit can damage components inside the tool. Damage to internal components could lead to unpredictable operation, such as "drift" of the jaws toward the closed position. If this is observed, then immediately discontinue use of the tool, remove it from the work area and contact Saint-Gobain Performance Plastics Customer Service. Reduced air pressure may be used for smaller sizes of BarbLocks®, as long as full closure of the BarbLocks® is consistently achieved. Pressure should be adjusted as needed to achieve full closure of the BarbLocks® in use at the time.

The User/Owner of this tool is to select their own appropriate air fitting to adapt the tool to their air supply system. Torque input to the 1/4" NPT fitting is not allowed at any time. Torque applied to any item being connected to the tool must be reacted (backed up) by a wrench placed on the 11/16" external hex of the 1/4" NPT fitting. Failure to properly react this torque can damage the plastic casing of the tool and possibly other internal components. This warning applies to installation and to removal of any item that is attached to the tool's 1/4" NPT air input fitting.

Minimum recommended inside diameter for the air hose is 3/8" (9.5mm). Smaller hose sizes may not perform well with some of the larger BarbLocks® due to restriction of the air supply.

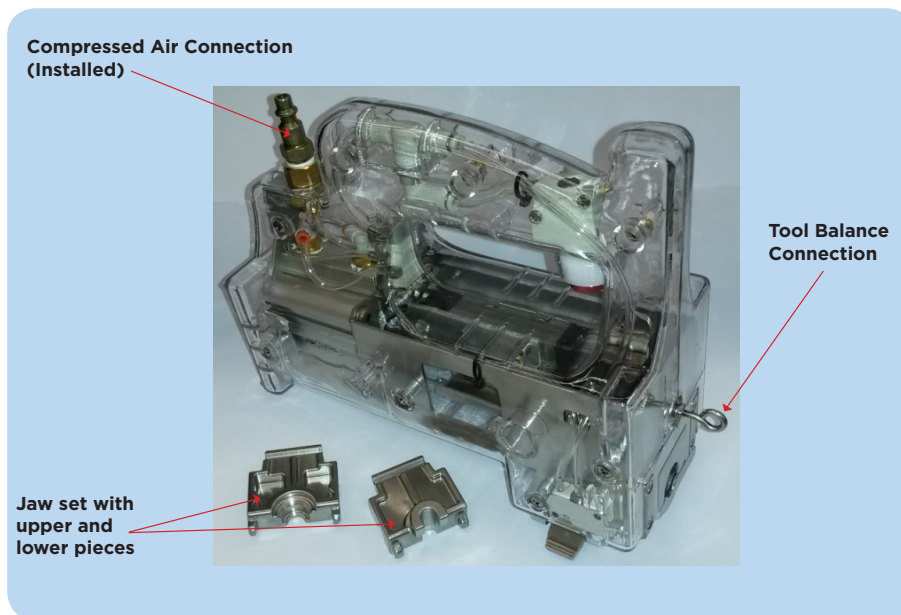


Figure 18: BarbLock® Assembly Tool

BarbLock® Assembly Tool: Operations Manual

10.0 Operational and Safety Checks

Depressing the Trigger will not cause movement of any part of the BarbLock® Assembly Tool unless the Safety Cover is closed and engaged with its interlock switch.



WARNING – Pinch Hazard: be aware that failure of the Safety Cover interlock switch could allow an exception to this. If the interlock switch fails, the jaws could move while the Safety Cover is open. Keep fingers clear of the jaws in order to avoid pinch injuries.

WARNING – Read This! The Safety Cover interlock switch should be tested at the start of each work shift. Open the Safety Cover and pull the Trigger, while keeping fingers away from the area of the jaws. The jaws should not move. If the jaws move, this is an indication of a failure of the interlock switch or other component in the tool's pneumatic circuit. Discontinue use of the tool, disconnect the air supply and remove the tool from the work area. Contact Saint-Gobain Customer Service for assistance.

With the Safety Cover closed, depressing the Trigger will close the jaws. Releasing the Trigger will immediately cause the jaws to return to the fully open position.

If the Safety Cover is closed and the Trigger is depressed (causing the jaws to close), then opening of the Safety Cover will cause the jaws to immediately return to the fully open position.



IMPORTANT – Read This! Do not attempt to defeat the Safety Cover interlock switch. The switch is there to protect the user from injury that may occur from unexpected motion/closing of the jaws. The interlock switch reduces the opportunity for pinch injuries by preventing motion of the jaws any time the Safety Cover is open. If the Safety Cover interlock switch is defeated, then the jaws can move while the Safety Cover is open and a pinch injury becomes more likely.

11.0 Noise Emissions

Low level noise is emitted by the tool during operation. The noise is generated by the release of pressurized air from the air cylinder any time the Trigger is pressed or released. The air is released internal to the Tool, which significantly muffles the noise level so that it does not pose any risk of hearing injury. This low sound level does not require any type of hearing protection or exposure duration limitation.

12.0 Vibration

There is no vibration noticeable to the operator during use of the tool. There is no need for exposure limitation or vibration mitigation measures.

13.0 Tool Balance - Connection and Use

The BarbLock® Assembly Tool has been provided with a connection for a tool balance. Refer to figure 18. This can be used to offset most of the weight of the tool to reduce operator fatigue, and to reduce the risk of damage to the Tool in the event that it is accidentally dropped. Weight of the Assembly Tool is approximately 5.4 pounds, with jaws installed.



IMPORTANT – Read This! The tool balance connection is threaded into the sheet metal chassis of the Tool. It is possible for the connection to become loose over time and with use. For that reason, it should be checked on a daily basis or at the beginning of each work shift. If it is found to be loose, disconnect the balance from the Tool, and then tighten the hex nut against the face of the tool with a 5/16" open end wrench while preventing the eye from rotating. Thread locking compound may be applied to the threads of the screw eye at the discretion of the Tool owner. Contact Saint-Gobain Customer Service if this action does not resolve the condition of the tool balance.

BarbLock® Tabletop Pneumatic Assembly Tool: Operations Manual

14.0 Residual Risks

The risk of injury from compressed air, or from the air hose is always present with devices powered by compressed air.

- | |
|---|
| - Air under pressure can cause severe injury: |
| - Always shut off air supply, drain hose of air pressure and disconnect tool from air supply when not in use, before changing accessories or when making repairs. |
| - Never direct air toward a person or yourself. |
| - Whipping hoses can cause severe injury. Always check for damaged or loose hoses and fitting. |
| - Use caution when using this device. |
| - Make sure the area is free of hazards, including trip hazards (from air lines in particular) |
| - Be aware of slippery surfaces caused by the use of IPA with the tool. |
| - Proceed with care in unfamiliar surroundings. There can be hidden hazards, FLS-5278C-CLWR Page 18 of 27 such as electrical and utility lines. |
| - This assembly tool is not intended for use in potentially explosive atmospheres. |
| - This assembly tool is not insulated against contact with electrical power. |

All known risks to the operator have been presented and discussed in other parts of this document. There are no additional risks to be presented.

15.0 Use and Storage Conditions

The following environmental limits are applicable to the BarbLock Assembly Tool.

	Use Conditions	Storage / Transport Conditions
Temperature (°C)	0 to 40	-10 to +50
Altitude	0 to 6560' (2000m)	0 to 40,000' (12.200m)
Relative Humidity (%)	0 to 80	0 to 80
Supply Air Pressure	100 psi (0.7MPa) max. & optimal	Not applicable

16.0 Cleaning

The Saint-Gobain BarbLock® Assembly Tool should only be cleaned with isopropyl alcohol on a clean cloth. Do not apply the isopropyl alcohol directly to the tool – apply the alcohol to a cloth and use the cloth to apply the alcohol to the tool. Wipe down all external surfaces as needed. The Safety Cover may also be opened and wiped on its internal faces. The jaws may be removed to allow access to the jaw carriers, which may be wiped down also. Do not ever apply alcohol directly into the jaw and jaw carrier area, as this may damage sensitive internal parts. If the jaws are to be cleaned, remove them first.

17.0 Maintenance and Service

Greasing of the linear guide rail and carriage is the only user service operation recommended by Saint-Gobain. The procedure is described in the section titled Rail Greasing Procedure for Saint-Gobain BarbLock® Assembly Tool beginning on page 20 of this document.

There are no other user-serviceable parts in the Tool. The internal air cylinder was lubricated for life at the time of manufacture. It should not require further lubrication. In the event that air cylinder lubrication does become necessary, contact Customer Service at Saint-Gobain Performance Plastics.

BarbLock® Assembly Tool: Operations Manual

18.0 Jaw Size Reference List

The following list provides the part numbers of BarbLocks® that are compatible with the corresponding Jaw set part numbers. Contact Saint-Gobain if additional reference information is needed for an application that has not been identified in this chart.

BarbLock® Part Number	Jaw Set Part Number
PF135125PPAF-AL	BLTJAW001
BL135186AL	BLTJAW001
BL135187	BLTJAW001
BL135187AL	BLTJAW001
PF135187PPAF-AL	BLTJAW002
PF135250PPAF	BLTJAW003
BL135250	BLTJAW002
BL135250AL	BLTJAW002
BL135251	BLTJAW004
BL135253ALHCPVDF	BLTJAW003
BL135254ALLRRPVDF	BLTJAW002
BL135251AL	BLTJAW002
BL135252	BLTJAW005
BL135252AL	BLTJAW005
PF135312PPAF-AL	BLTJAW006
BL135374	BLTJAW007
PF135375PPAF	BLTJAW007
BL135375	BLTJAW007
BL135375AL	BLTJAW007
BL135376	BLTJAW007
BL135377ALLRRPVDF	BLTJAW007
BL135500	BLTJAW008
BL135500AL	BLTJAW008
PF135500PPAF	BLTJAW008
BL135501	BLTJAW008
BL135501AL	BLTJAW008
BL135503PVDF	BLTJAW008
BL135506ALLRRPVDF	BLTJAW008

19.0 Rail Greasing Procedure for BarbLock® Assembly Tool

Saint-Gobain Performance Plastics recommends re-greasing of the internal linear guide rail and carriage on an annual basis. This maintenance requires use of a greasing kit (defined below) and opening of the tool to allow access to the grease fitting on the Carriage as shown in the images below.

Read and fully understand this entire procedure before attempting to perform this work. There is low risk of damage to the tool. If damage does occur, it could necessitate action from Customer Service at Saint-Gobain Performance Plastics.

BarbLock® Tabletop Pneumatic Assembly Tool: Operations Manual

20.0 Disassembly

Disconnect the air supply before performing any work on the tool. Lay the tool flat on the left side (see image 19 below). Use a Phillips screwdriver to remove the 8 screws that are visible in the right side Case. Lift the right side Case off the tool, along with its screws. Figure 19 shows the appearance of the tool after removal of the right side Case.

Do not insert any hard or sharp tools or other objects into the interior spaces of the BarbLock® Assembly Tool. Doing so could damage internal components and cause the tool to malfunction.

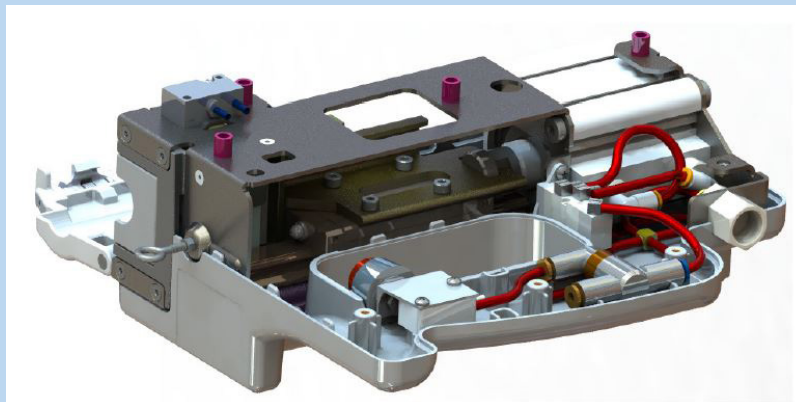


Figure 19: Inside of the tool after removal of the right side Case and screws

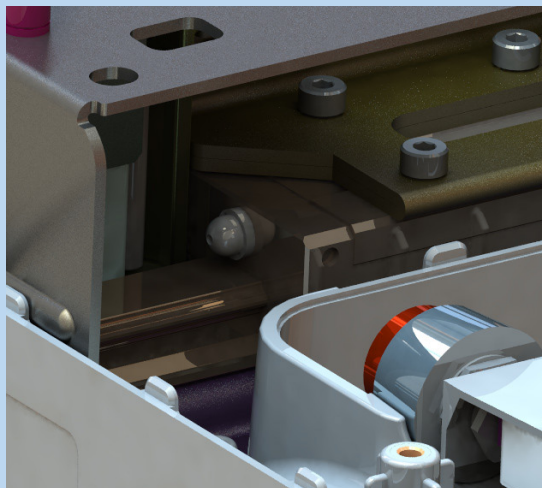


Figure 20: A close up of view of the grease fitting on end of Carriage

BarbLock® Assembly Tool: Operations Manual

21.0 Greasing the Carriage

Use THK type AFB-LF grease. Do not substitute a different grease. There may be compatibility issues with different greases. Mixing incompatible grease types can damage the tool and cause premature failure of the linear bearing system. The correct grease, and a grease gun for dispensing the correct 0.6cc volume, can be purchased from:

Mechatronic Techniques, Inc.
720 F Avenue, Suite 109
Plano, Texas 75074
(214) 431-5727
www.mechatronictechniques.com



IMPORTANT – Read This! The AFB-LF grease can cause serious eye damage or irritation. Eye and face protection is to be worn when performing the greasing service. THK provides an online MSDS for the grease at this URL: http://www.thkstore.com/media/msd/AFB-LF_SDS_USA.pdf The MSDS is to be reviewed before performing the greasing service to the tool.



Figure 21: Greasing kit, THK part number MG70

The two items required to perform the greasing service are the THK MG70 Grease Gun and a 70 gram tube of AFB-LF grease. The grease is included as a part of the MG70 kit.

The kit also contains several grease nozzles / adaptors. Use the “type L” fitting supplied with the kit (see figure 22 below). Grease is injected into the carriage by inserting the tip of the type L fitting into the open end of the nipple on the end of the carriage, shown in the red circle in figure 20. Inject only the 0.6cc of grease that is dispensed by a single pump from the grease gun. Grease injection is most effective after removing air from the grease gun system. Apply moderate force to the back end of the grease cartridge using a blunt object such as a dowel rod, while moving the grease gun lever through several cycles. The first several strokes of the grease gun lever will cause a mix of air and grease to be ejected. Continue until there is very little or no air ejected with the grease. Then insert the tip of the type L grease nozzle into the hole in the end of the fitting on the carriage. Use a finger to apply force to the type L fitting to maintain engagement with the fitting on the carriage. Inject just one stroke of grease. Application of excess grease can lead to internal problems with the carriage.

After injecting the new grease, wipe excess grease from the outside of the carriage, rail and grease nipple. Use a clean soft cloth for cleanup of excess grease. A paper towel is not suitable for cleanup of grease. It is important to prevent the introduction of dirt and foreign debris into the linear bearing system, since that could cause increased wear or damage and premature failure.

21.0 Greasing the Carriage Continued



Figure 22: Type L grease fitting, supplied with THK MG70 grease kit.

22.0 Reassembly Procedure

Reassembly is done in exactly the reverse of the disassembly procedure. The small diameter pneumatic tubing may require slight position adjustment to prevent pinching during attachment of the right side Case. Carefully observe the tubing to see if it is pinched or trapped between parts while the right side Case is re-installed. Tubing can be damaged (cut or torn) if it is pinched during reassembly. The tool will not operate properly if the tubing is pinched or cut during reassembly.

Place the right side Case into position on the assembly. It should engage easily with the left side Case, without any need to force the parts into position. Before installing screws, observe the joint between the left and right side Cases to confirm that they are properly aligned with each other and the two Case halves are in contact. Once this is confirmed, insert the 8 screws that attach the right side Case and seat them to a very light snug condition. Once more, confirm the position of the right side Case by looking for a uniform joint between the two Case halves. Once this is confirmed, snug the eight (8) screws to complete the reassembly process. Be careful not to over-tighten.

23.0 Functional Confirmation

The air supply should still be disconnected at this point. If jaws are installed in the tool, ensure they are both fully seated in their respective carriers. Jaws are not required for this functional confirmation, so they may be removed if desired.

With the air supply still disconnected, open and close the Safety Cover and latch to confirm proper motion for both. Be observant for binding or for failure of the Safety Cover to fully close. Test that the Latch engages and locks the Safety Cover in the closed position.

Confirm that the air supply does not exceed the maximum allowed value of 100 psi.

23.0 Functional Confirmation Continued



IMPORTANT – Pinch Hazard: attach the air supply to the tool while keeping fingers out of the jaw area – the lower jaw could move unexpectedly. With the Safety Cover open, depress the trigger. The jaws should not move. If the jaws do not move, then proceed to the next step in the procedure. If the jaws move, then there is a problem that must be investigated. Detach the air supply and proceed to the Troubleshooting paragraph below.

Close the Safety Cover, engage the Latch and depress the trigger. The lower jaw should move all the way to contact with the upper jaw and remain in that position until the trigger is released. When the trigger is released, the lower jaw should move away from the upper jaw and return to the fully open position. If the lower jaw did not move as described, then disconnect the air supply and proceed to the Troubleshooting paragraph.

It is desirable, but not mandatory, that the tool should be checked for internal air leaks. If possible, remove the tool to a quiet area. With the air supply connected, listen carefully for the sound of leaking air, from all around the tool. If the sound of leaking air is detected, there may be damage to one of the pneumatic tubes. Disconnect the air supply and proceed to the troubleshooting paragraph.

If the jaws behaved as they should, and no air leaks are detected, then the tool is ready to return to service.

24.0 Troubleshooting

If the Safety Cover, the Latch, or the jaws did not function as they should, as described in the Functional Confirmation section, or if an air leak was detected, then something may have been damaged during the re-assembly. Remove the right side Case again, as described in the disassembly paragraph of this procedure.

Carefully look for any place the small diameter pneumatic tubing could have been cut or pinched. Pinching is difficult to diagnose if it does not leave permanent damage, since the pinch condition is often removed as soon as the Case is removed from the tool.

Review the location and path of the tubing and check especially in places where parts come together, since those are places where the tubing is most likely to be damaged or pinched. Lower the right side Case onto the tool, watching carefully for places where the tubing may be damaged or pinched. Carefully align and mate the two side Cases together. Once alignment is confirmed, insert the screws and tighten them snugly.

Return to the Functional Confirmation paragraph and repeat the checks detailed there. If the tool still does not pass the tests, then it will be necessary to contact Saint-Gobain Customer Service for repair of the tool.



Warning – Safety Hazard: do not continue to use a BarbLock® Assembly Tool that is not operating correctly. To do so could result in injury to the operator, to others nearby, or damage to the tool. Disconnect the air supply and remove any improperly operating tool from the work area. Contact Customer Service at Saint-Gobain Performance Plastics for assistance with any BarbLock® Assembly Tool that is not functioning properly.

25.0 Tool Physical Details

Tool Weight: 5.2 pounds, including one set of jaws

Tool Dimensions: refer to image below

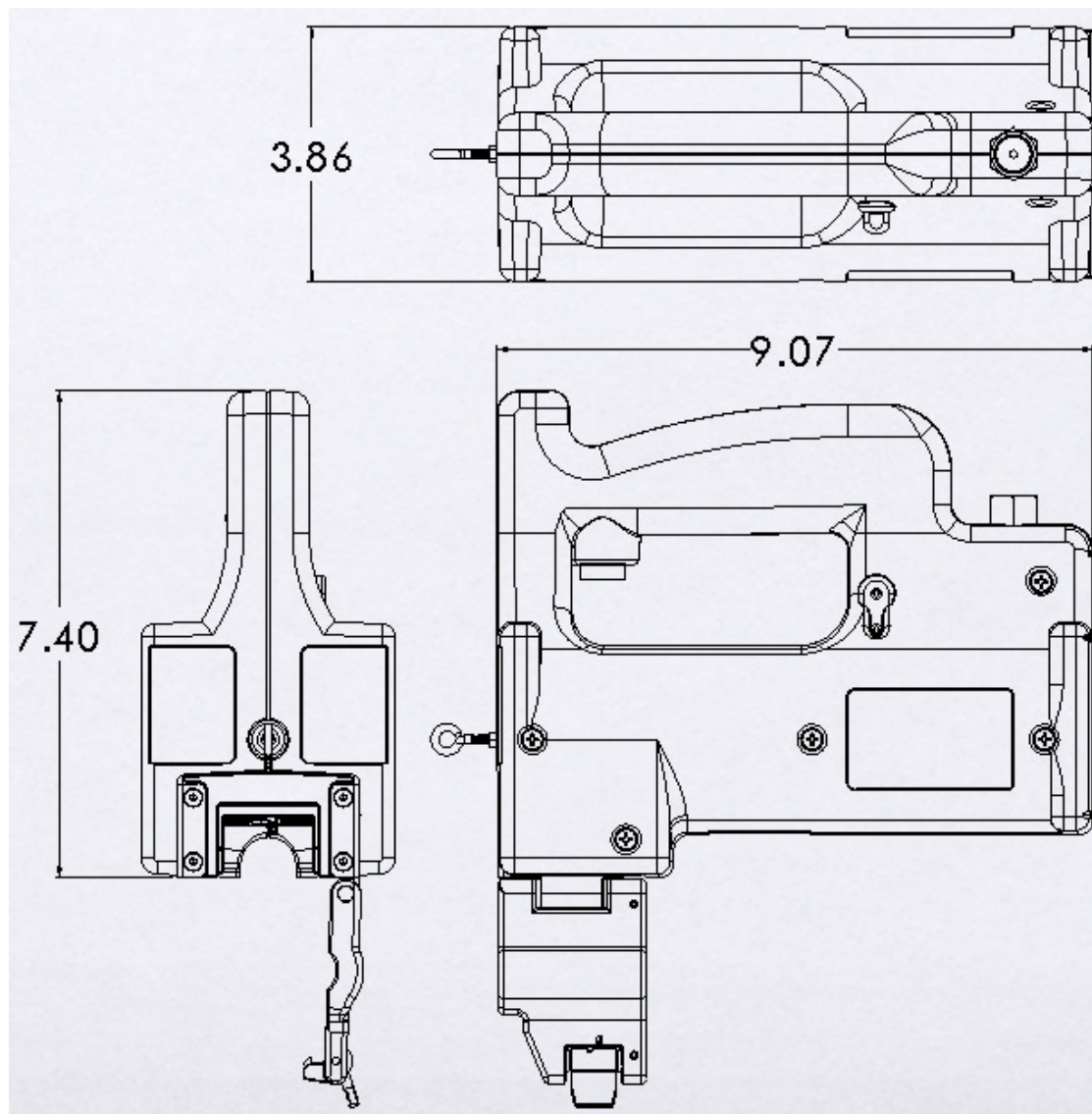


Figure 23: A schematic of BarbLock® Assembly Tool

26.0 CE Mark Declaration Of Conformity



EC – Declaration of Conformity

We:

Saint-Gobain Performance Plastics
11590 US-31
Williamsburg, MI 49690, USA

Declare in sole responsibility that the equipment:

Saint-Gobain Barbblock Assembly Tool, BLT-HHPAD

to which this declaration applies, complies with these Directives and Norms, when installed in accordance with the Installation and Maintenance Manual.

Machinery Directive 2006/42/EC and all amendments

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:

Standard Number	Description
ISO 11148-1: 2011	Hand-held non-electric power tools – Safety requirements – Part 1: Assembly power tools for non-threaded mechanical fasteners.
ISO 12100-1:2010	Safety of machinery – General principles for design –Risk assessment and risk reduction.

A handwritten signature in black ink, appearing to read "Mark Collette", is written over a light gray rectangular background.

Mark Collette
Global Safety and Health Manager
Saint-Gobain Performance Plastics
31500 Solon Road
Solon, OH 44139

Date:

A date stamp in black ink, showing "3/15/17", is written over a light gray rectangular background.