



CONNECTION COLLAR

OPERATION & SAFETY MANUAL



WARNING

These instructions are for your personal safety. Always ensure that you have read and understood these instructions before using the equipment.

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

TABLE OF CONTENTS

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

TOPIC	PAGE
Safety Information	3
Environment, Transport, Storage & Disposal	4
Declaration of Incorporation for a Partly Completed Machine	5
Equipment, Accessories, Felt Collars, GRP Collars, & Bladders: US	6
Equipment, Accessories, Felt Collars, GRP Collars, & Bladders: UK/EU/ROW	12
Using the Strapping Tool	18
Fastening the Bladder to the Installation Tool Head	18
Connecting the Picote Push Rods	23
Chart 1 and Chart 2: Bladder Installation Pressures for Ambient Cure	24
Chart 3: Bladder Installation Pressures for Steam Curing	25
Steam Curing: Setup & Example	26
Maintenance	27
Repairing a Damaged Bladder	28
Appendix 1: A Typical Repair Installation	32
Connection Collar Installation Tool	33
Applying Bladder Release Agent	33
Adding the Connection Collar	33
Wetting Out the Connection Collar	35
Inverting Wet Out Connection Collar	37
Securing the Connection Collar	38
Transporting Connection Collar to Pipe	40
Push Rod String Setup	40
Installing the Connection Collar	42
Removing the Bladder	47
Final Inspection	49
Warranty Policy & Procedure	50

To watch practical demonstration videos, take a course, or to download an electronic copy of these Instructions, please visit www.picoteinstitute.com. Please note that videos and courses are not intended as a replacement or alternative to this operating and safety manual, but only as an additional learning tool.

SAFETY INFORMATION

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

WARNING

This section contains important safety information.
Failure to comply could result in serious injury or death.

Safety Symbols

Safety symbols are used throughout this manual to draw attention to potential hazards.



Danger risk of serious injury from hot parts, follow instructions.

Personal Protective Equipment (PPE)

Safety symbols are used throughout this manual to draw attention to potential hazards.



Suitable eye protection to protect against injuries and chemicals from irritating eyes.



Suitable chemical resistant gloves. Do not use gloves which can become entangled.



Suitable respirator to prevent any dust or fumes being inhaled or consumed, which could cause occupational asthma or dermatitis.

Operational Safety



- Always wear appropriate personal protective equipment including proper eye protection and chemical resistant gloves. Other personal protective equipment, such as dust mask, gloves and other protective clothing should be worn when necessary.
- Before each use inspect Installation Tools and Bladders carefully for potential damage.
- **Change damaged parts immediately.**
- Only use equipment accessories and spare parts offered by Picote Solutions and in the manner intended and as described by Picote Solutions.
- Some parts of the equipment can get hot when steam curing. Avoid touching these areas.

ENVIRONMENT, TRANSPORT, STORAGE & DISPOSAL

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

ENVIRONMENT:

Operational Ambient Temperature Range: 0°C to +50°C (32 to 122°F).

TRANSPORT:

The Installation Tool and Bladder should be transported un-pressurised in a protective tube to protect from the elements and prevent any damage or premature wear that could cause accidents and/or bladder malfunctions.

STORAGE:

Storage Ambient Temperature Range: -20°C to +50°C (-4 to 122°F).

Store in a condensation-free environment.

The Installation Toolhead, Bladder, and Installation Assemblies should be stored indoors to protect from rain and sunlight.

Where the Bladder has been stored for long periods of time it will need to be slowly filled/unfilled with compressed air a few times before being used. This helps the elastic materials to stretch, enabling the Bladder to properly perform.

If the Bladder has been stored in an environment colder than 0°C (32°F), the Bladder should be placed at room temperature for approximately 2 hours prior to use.

DISPOSAL:

The two end caps, steel cable ties and connectors can be recycled in metal waste collection points. The Bladders can be disposed of as rubber waste.

Always check and follow local waste handling rules and regulations!

DECLARATION OF INCORPORATION FOR A PARTLY COMPLETED MACHINE

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

We Picote Solutions Oy Ltd as the responsible manufacturer, declare that the following Picote Solutions Oy Ltd Equipment:

Picote Connection Collar 2.0 System

are of series production and

Conform to the following EU Directive:

2006/42/EY

And is manufactured in accordance with the following standards or standardised documents:

SFS-EN ISO 1200

SFS-EN ISO/TR 14121-2:2013

SFS-EN ISO 13857:2019

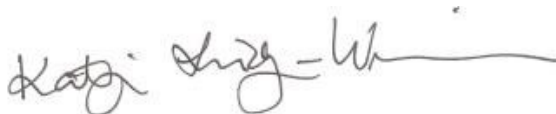
SFS-EN ISO 14120:2015

SFS-EN ISO 13854:2019

The technical documentation is kept by our authorised representative in Europe who is:

Picote Solutions Oy Ltd, Pienteollisuustie 24
06450 Porvoo, Finland

1 March 2023



Katja Lindy-Wilkinson

C.E.O.

Picote Solutions Oy Ltd
Pienteollisuustie 24, 06450 Porvoo,
Finland

EQUIPMENT & ACCESSORIES: US

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE



Installation Tool 2.0

Can be used for both ambient and steam curing. A unique cap design allows the use of an integrated one-way flow/steam port.

Product #	Model
1410000021	Head 1.22" for 3" & 4" installations
1410000022	Head 2" for 6" & 8" installations
1410000048	Head 3.58" for 9", 10" & 12" installations

Note: Installation Tool 2.0 Head, 2.79" for 8" installations was discontinued in January 2024.



Push Rod 0.86" for 3-6" Pipes

1410000023

Designed to be both strong enough to push and rotate, while also flexible enough to go through multiple bends when needed. Can also be used with steam curing. Available in 5 ft lengths.



Push Rod 0.94" for 4-9" Pipes

1410000032

A more rigid rod for longer runs and larger pipes. Designed to be both strong enough to push and rotate, while also flexible enough to go through multiple bends when needed. Can also be used with steam curing. Available in 5 ft lengths.

Air Pressure Regulator 0-29 PSI

2340000001US



0-29 PSI model for use with the Picote Connection Collar System.

Strapping Tool & Cable Ties

1410000029

1410000031



Use with the stainless steel Cable Ties (1410000031) to make the connection between the Installation Tool Head and Bladder airtight. Cable Ties come in packages of 25 pieces.



Turning Handle

1410000024US

The Turning Handle makes positioning the Connection Collar easy. An air valve facilitates the inflation process, so you are able to control how much pressure/air you let into the Bladder. This allows you to guide the Connection Collar to the precise location before fully inflating it.

Installation Tool 2.0 Air Adapter

1410000025US



Designed to replace the Turning Handle during the wet-out and curing process. This allows the release of the Turning Handle, in order to be used while the previous installation is curing.

Pocket Vacuum

1410000000US



For vacuum and installation of Connection Collars.

EQUIPMENT & ACCESSORIES: US

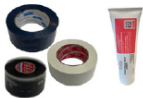
SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Installation Tool 2.0 Accessories Starter Kit

1410000035WO
1410000035



Includes Hybrid Tape, Sealing Tape, Cover Tape, Bladder Release Agent, & Bladder Lubricant Oil or Spray in a Picote Tool Bag.



Product number ending in WO comes with Bladder Lubricant Oil.

Installation Tool Hybrid Tape

1410000026



Ideal for securing the Connection Collar before installation. 134 ft roll.

Installation Tool Sealing Tape

1410000027



Provides a complete seal between the Installation Tool Head and Bladder. Also has a high temperature resistance to work when using steam. 9.8 ft roll.

Bladder Release Agent

1410000039



Prevents Epoxy from sticking to the Bladder, allowing for easy removal of the Bladder.

Silicone Glue 3 oz

1410000038



For repairing/patching holes on bladders.

Installation Tool Cover Tape

1410000028



Strong tape used to cover the clamps which hold the Bladder on the Tool Head. 164 ft roll.

Hose Clamp



An alternative to the Strapping Tool and Cable Ties. To be used with Installation Tool Heads for clamping bladders on the head.

Product #

Model

PN 9500000385

for 3-4" installations

PN 9500000387

for 6-8" installations

PN 9500000391

for 9-12" installations

SEALED FELT CONNECTION COLLARS: US

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Sealed Connection Collars

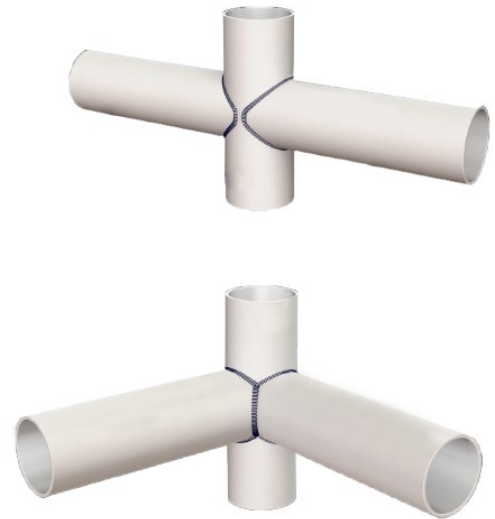
Product #	Size & Shape		
1418007050T	3"/2" T	1418200150T	8"/6" T
1418007050Y	3"/2" Y	1418200150Y	8"/6" Y
1418007070T	3"/3" T	1418200200T	8"/8" T
1418007070Y	3"/3" Y	1418200200Y	8"/8" Y
1418010050T	4"/2" T	1418225100T	9"/4" T
1418010050Y	4"/2" Y	1418225100Y	9"/4" Y
1418010070T	4"/3" T	1418225150T	9"/6" T
1418010070Y	4"/3" Y	1418225150Y	9"/6" Y
1418100100T	4"/4" T	1418225200T	9"/8" T
1418100100Y	4"/4" Y	1418225200Y	9"/8" Y
1418125050T	5"/2" T	1418225225T	9"/9" T
1418125050Y	5"/2" Y	1418225225Y	9"/9" Y
1418125070T	5"/3" T		
1418125070Y	5"/3" Y		
1418125100T	5"/4" T		
1418125100Y	5"/4" Y		
1418125125T	5"/5" T		
1418125125Y	5"/5" Y		
1418150070T	6"/3" T		
1418150070Y	6"/3" Y		
1418150100T	6"/4" T		
1418150100Y	6"/4" Y		
1418150125T	6"/5" T		
1418150125Y	6"/5" Y		
1418150150T	6"/6" T		
1418150150Y	6"/6" Y		
1418200100T	8"/4" T		
1418200100Y	8"/4" Y		

DOUBLE CONNECTION COLLARS: US

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Double Connection Collars

Product #	Pipe Size & Shape
1419100707T-90	4"/3"/3"-T-connection-90° between connections
1419100707Y-90	4"/3"/3"-Y-connection-90° between connections
1419100707T-180	4"/3"/3"-T-connection-180° between connections
1419100707Y-180	4"/3"/3"-Y-connection-180° between connections
1419101010T-90	4"/4"/4"-T-connection-90° between connections
1419101010Y-90	4"/4"/4"-Y-connection-90° between connections
1419101010T-180	4"/4"/4"-T-connection-180° between connections
1419101010Y-180	4"/4"/4"-Y-connection-180° between connections
1419151010T-90	6"/4"/4"-T-connection-90° between connections
1419151010Y-90	6"/4"/4"-Y-connection-90° between connections
1419151010T-180	6"/4"/4"-T-connection-180° between connections
1419151010Y-180	6"/4"/4"-Y-connection-180° between connections



GLASS FIBER (GRP) CONNECTION COLLARS: US

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

New! Glass Fiber (GRP) Connection Collars

Picote has developed a glass fiber (GRP) Connection Collar. These can be installed using silicate resin for a faster result and with the increased structural integrity that glass fiber offers. Long collars enable the material to meet global standards. The GRP system installation process is simple and customer friendly, with less mess and waste. A fast installation also means a reduction in labor costs and increase in productivity.

GRP Connection Collars

Product #	Size & Shape		
1411100100T	4"/4" T	1411300100T	12"/4" T
1411100100Y	4"/4" Y	1411300100Y	12"/4" Y
1411150100T	6"/4" T	1411300150T	12"/6" T
1411150100Y	6"/4" Y	1411300150Y	12"/6" Y
1411150150T	6"/6" T	1411300225T	12"/9" T
1411150150Y	6"/6" Y	1411300225Y	12"/9" Y
1411200100T	8"/4" T	1411300300T	12"/12" T
1411200100Y	8"/4" Y	1411300300Y	12"/12" Y
1411200150T	8"/6" T		
1411200150Y	8"/6" Y		
1411200200T	8"/8" T		
1411200200Y	8"/8" Y		
1411225100T	9"/4" T		
1411225100Y	9"/4" Y		
1411225150T	9"/6" T		
1411225150Y	9"/6" Y		
1411225225T	9"/9" T		
1411225225Y	9"/9" Y		
1411250100Y	10"/4" Y		
1411250150Y	10"/6" Y		
1411250200Y	10"/8" Y		
1411250250Y	10"/10" Y		

BLADDERS: US

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Picote Bladders

1416200150Y	8"/6" Y
1416200200T	8"/8" T
1416200200Y	8"/8" Y
1416225100T-B	9"/4" T
1416225100Y-B	9"/4" Y
1416225150T-B	9"/6" T
1416225150Y-B	9"/6" Y
1416225200T-B	9"/8" T
1416225200Y-B	9"/8" Y
1416225225T-B	9"/9" T
1416225225Y-B	9"/9" Y
1416250100T	10"/4" T
1416250100Y	10"/4" Y
1416250150T	10"/6" T
1416250150Y	10"/6" Y
1416250200T	10"/8" T
1416250200Y	10"/8" Y
1416250250T	10"/10" T
1416250250Y	10"/10" Y
1416300100T	12"/4" T
1416300100Y	12"/4" Y
1416300150T	12"/6" T
1416300150Y	12"/6" Y
1416300200T	12"/8" T
1416300200Y	12"/8" Y
1416300225T	12"/9" T
1416300225Y	12"/9" Y
1416300250T	12"/10" T
1416300250Y	12"/10" Y
1416300300T	12"/12" T
1416300300Y	12"/12" Y

Straight/Double Connection Bladders

Product #	Pipe Size & Shape
1416070001	Picote Bladder 3" (no connection) 3.2ft long
1416100001	Picote Bladder 4" (no connection) 3.2ft long
1416150001	Picote Bladder 6" (no connection) 3.2ft long
1417100707T-90	4"/3"/3"-T-connection-90° between connections
1417100707Y-90	4"/3"/3"-Y-connection-90° between connections
1417100707T-180	4"/3"/3"-T-connection-180° between connections
1417100707Y-180	4"/3"/3"-Y-connection-180° between connections
1417101010T-90	4"/4"/4"-T-connection-90° between connections
1417101010Y-90	4"/4"/4"-Y-connection-90° between connections
1417101010T-180	4"/4"/4"-T-connection-180° between connections
1417101010Y-180	4"/4"/4"-Y-connection-180° between connections
1417151010T-90	6"/4"/4"-T-connection-90° between connections
1417151010Y-90	6"/4"/4"-Y-connection-90° between connections
1417151010T-180	6"/4"/4"-T-connection-180° between connections
1417151010Y-180	6"/4"/4"-Y-connection-180° between connections

Picote Bladders

Silicone Bladders available for T and Y connection collar installations, as well as straight bladders (no connection) and double connection bladders. Designed for use with epoxy or silicate resin systems. 3.3' length.

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE



Installation Tool 2.0

Can be used for both ambient and steam curing. A unique cap design allows the use of an integrated one-way flow/steam port.

Product #	Model
1410000021	Head 31mm for DN75 & DN100 installations
1410000022	Head 51mm for DN150 & DN200 installations
1410000048	Head 91mm for DN225, DN250 & DN300 installations

Note: Installation Tool 2.0, 71mm for DN200 installations was discontinued in January 2024.



Push Rod 22mm for DN70-150 Pipes

1410000023

Designed to be both strong enough to push and rotate, while also flexible enough to go through multiple bends when needed. Can also be used with steam curing. Available in 1.5m lengths.



Push Rod 24mm for DN100-225 Pipes

1410000032

A more rigid rod for longer runs and larger pipes. Designed to be both strong enough to push and rotate, while also flexible enough to go through multiple bends when needed. Can also be used with steam curing. Available in 1.5m lengths.

Air Pressure Regulator 0-2bar

2340000001



0-2bar model for use with the Picote Connection Collar System.

Strapping Tool & Cable Ties

1410000029

1410000031



Use with the stainless steel Cable Ties (1410000031) to make the connection between the Installation Tool Head and Bladder airtight. Cable Ties come in packages of 25 pieces.



Turning Handle

1410000024US

The Turning Handle makes positioning the Connection Collar easy. An air valve facilitates the inflation process, so you are able to control how much pressure/air you let into the Bladder. This allows you to guide the Connection Collar to the precise location before fully inflating it.

Installation Tool 2.0 Air Adapter

1410000025



Designed to replace the Turning Handle during the wet-out and curing process. This allows the release of the Turning Handle, in order to be used while the previous installation is curing.

Pocket Vacuum

1410000000



For vacuum and installation of Connection Collars.

EQUIPMENT & ACCESSORIES: UK/EU/ROW

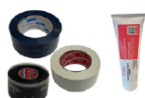
SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Installation Tool 2.0 Accessories Starter Kit

1410000035WO
1410000035



Includes Hybrid Tape, Sealing Tape, Cover Tape, Bladder Release Agent, & Bladder Lubricant Oil or Spray in a Picote Tool Bag.



Product number ending in WO comes with Bladder Lubricant Oil.

Installation Tool Cover Tape

1410000028



Strong tape used to cover the clamps which hold the Bladder on the Tool Head. 50m roll.

Hose Clamp



An alternative to the Strapping Tool and Cable Ties. To be used with Installation Tool Heads for clamping bladders on the head

Product #	Model
PN 9500000385	for DN75-100 installations
PN 9500000387	for DN150-200 installations
PN 9500000391	for DN225-300 installations

Installation Tool Hybrid Tape

1410000026



Ideal for securing the Connection Collar before installation. 41m roll.

Installation Tool Sealing Tape

1410000027



Provides a complete seal between the Installation Tool Head and Bladder. Also has a high temperature resistance to work when using steam. 3m roll.

Bladder Release Agent

1410000039



Prevents Epoxy from sticking to the Bladder, allowing for easy removal of the Bladder.

Silicone Glue 90mL

1410000038



For repairing/patching holes on bladders.

SEALED FELT CONNECTION COLLARS: UK/EU/ROW

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Sealed Connection Collars

Product #	Size & Shape		
1418007050T	DN70/50 T	1418200150T	DN200/150 T
1418007050Y	DN70/50 Y	1418200150Y	DN200/150 Y
1418007070T	DN70/70 T	1418200200T	DN200/200 T
1418007070Y	DN70/70 Y	1418200200Y	DN200/200 Y
1418010050T	DN100/50 T	1418225100T	DN225/100 T
1418010050Y	DN100/50 Y	1418225100Y	DN225/100 Y
1418010070T	DN100/70 T	1418225150T	DN225/150 T
1418010070Y	DN100/70 Y	1418225150Y	DN225/150 Y
1418100100T	DN100/100 T	1418225200T	DN225/200 T
1418100100Y	DN100/100 Y	1418225200Y	DN225/200 Y
1418125050T	DN125/50 T	1418225225T	DN225/225 T
1418125050Y	DN125/50 Y	1418225225Y	DN225/225 Y
1418125070T	DN125/70 T		
1418125070Y	DN125/70 Y		
1418125100T	DN125/100 T		
1418125100Y	DN125/100 Y		
1418125125T	DN125/125 T		
1418125125Y	DN125/125 Y		
1418150070T	DN150/70 T		
1418150070Y	DN150/70 Y		
1418150100T	DN150/100 T		
1418150100Y	DN150/100 Y		
1418150125T	DN150/125 T		
1418150125Y	DN150/125 Y		
1418150150T	DN150/150 T		
1418150150Y	DN150/150 Y		
1418200100T	DN200/100 T		
1418200100Y	DN200/100 Y		

DOUBLE CONNECTION COLLARS: UK/EU/ROW

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Double Connection Collars

Product #	Pipe Size & Shape
1419100707T-90	DN100/70/70-T-connection 90° between connections
1419100707Y-90	DN100/70/70-Y-connection 90° between connections
1419100707T-180	DN100/70/70-T-connection 180° between connections
1419100707Y-180	DN100/70/70-Y-connection 180° between connections
1419101010T-90	DN100/100/100-T-connection 90° between connections
1419101010Y-90	DN100/100/100-Y-connection 90° between connections
1419101010T-180	DN100/100/100-T-connection 180° between connections
1419101010Y-180	DN100/100/100-Y-connection 180° between connections
1419151010T-90	DN150/100/100-T-connection 90° between connections
1419151010Y-90	DN150/100/100-Y-connection 90° between connections
1419151010T-180	DN150/100/100-T-connection 180° between connections
1419151010Y-180	DN150/100/100-Y-connection 180° between connections



GLASS FIBER (GRP) COLLARS: UK/EU/ROW

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

New! Glass Fiber (GRP) Connection Collars

Picote has developed a glass fiber (GRP) Connection Collar. These can be installed using silicate resin for a faster result and with the increased structural integrity that glass fiber offers. Long collars enable the material to meet global standards. The GRP system installation process is simple and customer friendly, with less mess and waste. A fast installation also means a reduction in labor costs and increase in productivity.

GRP Connection Collars

Product #	Size & Shape		
1411100100T	100/100 T	1411300100T	300/100 T
1411100100Y	100/100 Y	1411300100Y	300/100 Y
1411150100T	150/100 T	1411300150T	300/150 T
1411150100Y	150/100 Y	1411300150Y	300/150 Y
1411150150T	150/150 T	1411300225T	300/225 T
1411150150Y	150/150 Y	1411300225Y	300/225 Y
1411200100T	200/100 T	1411300300T	300/300 T
1411200100Y	200/100 Y	1411300300Y	300/300 Y
1411200150T	200/150 T		
1411200150Y	200/150 Y		
1411200200T	200/200 T		
1411200200Y	200/200 Y		
1411225100T	225/100 T		
1411225100Y	225/100 Y		
1411225150T	225/150 T		
1411225150Y	225/150 Y		
1411225225T	225/225 T		
1411225225Y	225/225 Y		
1411250100Y	250/100 Y		
1411250150Y	250/150 Y		
1411250200Y	250/200 Y		
1411250250Y	250/250 Y		

Picote Bladders

Product #	Size & Shape
1416007050T	DN70/50 T
1416007050Y	DN70/50 Y
1416007070T	DN70/70 T
1416007070Y	DN70/70 Y
1416010050T	DN100/50 T
1416010050Y	DN100/50 Y
1416010070T	DN100/70 T
1416010070Y	DN100/70 Y
1416100100T	DN100/100 T
1416100100Y	DN100/100 Y
1416125070T	DN125/70 T
1416125070Y	DN125/70 Y
1416125100T	DN125/100 T
1416125100Y	DN125/100 Y
1416125125T	DN125/125 T
1416125125Y	DN125/125 Y
1416150070T	DN150/70 T
1416150070Y	DN150/70 Y
1416150100T	DN150/100 T
1416150100Y	DN150/100 Y
1416150150T	DN150/150 T
1416150150Y	DN150/150 Y
1416200100T	DN200/100 T
1416200100Y	DN200/100 Y
1416200150T	DN200/150 T
1416200150Y	DN200/150 Y
1416200200T	DN200/200 T

Straight/Double Connection Bladders

Product #	Pipe Size & Shape
1416070001	Straight Bladder DN70
1416100001	Straight Bladder DN100
1416150001	Straight Bladder DN150
1417100707T-90	DN100/70/70 T-connection 90° between connections
1417100707Y-90	DN100/70/70 Y-connection 90° between connections
1417100707T-180	DN100/70/70 T-connection 180° between connections
1417100707Y-180	DN100/70/70 Y-connection 180° between connections
1417101010T-90	DN100/100/100 T-connection 90° between connections
1417101010Y-90	DN100/100/100 Y-connection 90° between connections
1417101010T-180	DN100/100/100 T-connection 180° between connections
1417101010Y-180	DN100/100/100 Y-connection 180° between connections
1417151010T-90	DN150/100/100 T-connection 90° between connections
1417151010Y-90	DN150/100/100 Y-connection 90° between connections
1417151010T-180	DN150/100/100 T-connection 180° between connections
1417151010Y-180	DN150/100/100 Y-connection 180° between connections

Picote Bladders

Silicone Bladders available for T and Y connection collar installations, as well as straight bladders (no connection) and double connection bladders. Designed for use with epoxy or silicate resin systems. 1m length.

OPERATING INSTRUCTIONS

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

WARNING

This section contains important safety information.
Failure to comply could result in serious injury or death.

Before Operation:

Always use a pressure regulator when using the Picote Connection Collar 2.0. Unregulated compressor pressure will burst the bladder.

Strapping Tool:

The Strapping Tool has two tension settings: Manual and Automatic

Check that the tension switch is pulled backwards towards you (manual position) when tightening the Cable tie. If you use the Automatic Tension setting it will cause the Strapping Tool to release automatically and you won't be able to fully tighten the Cable tie.



Fastening the Bladder to the Installation Tool

1. Clean Installation Tool Head Surfaces.

- Clean both ends.



2. Add Sealing Tape.

- Sealing Tape is vulcanizing tape and you need to stretch it over itself to make it stick.
- Add 2-3 layers.
- Add Sealing Tape to both ends.



3. Open Bladder and Put Installation Tool Head Inside.

- Pay attention to the lateral direction when installing Y-connections.

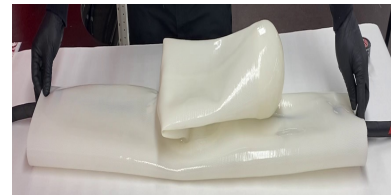


OPERATING INSTRUCTIONS

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

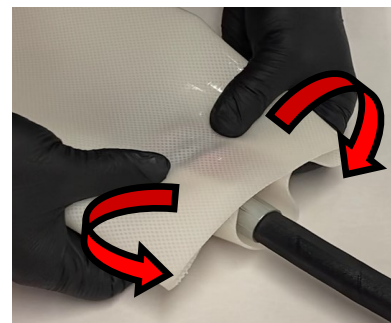
4. Centralize Installation Tool Head.

- Before adding the Sealing Tape on the Bladder, make sure it is centralized on the Installation Tool Head.



5. Fold Over Bladder Ends.

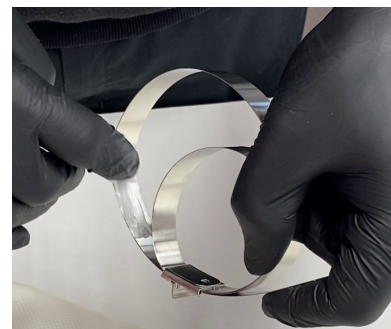
- Split the difference on each side and wrapping towards the bottom of the Installation Tool and then add the Sealing Tape.
- The Sealing Tape needs to be wide enough to cover the groove of the Installation Tool Head sleeve.



6. Make Double Rounds on Cable Tie .

- Add Bladder Release Agent lubricant between the first and second layer to reduce friction.

Not on bigger one!



OPERATING INSTRUCTIONS

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

7. Put Cable Tie Over Bladder

- Position the lock to either side of the Bladder folds
- Make sure that the lock is NOT covering the bladder folds and is NOT on the top of the Bladder.
- Tighten the cable tie.
- Insert strap tail through the jaw and tensioning mandrel
- Start ratcheting the strap until tight. Jaw should be straightly aligned (collinear) with the strap tail when tightening.
- You will need to tighten them securely beyond what you can likely do with hand strength alone. Position the Strapping Tool against a table surface to provide the extra force needed. You will need to do this around 15 times until fully tightened.



8. Cut Excess Cable Tie and Lock with Strapping Tool.

- Bend strap 90° and cut it.

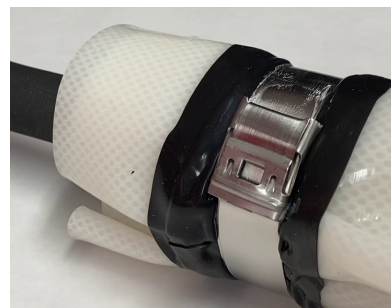


OPERATING INSTRUCTIONS

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

8. Cut Excess Cable Tie and Lock with Strapping Tool (continued)

- Bend leftover strap 90° by hand.
- Close the strap buckle.



9. Test Bladder for Leaks.

- Use Installation Tool Air Adapter.
- Close the steam valve to make it easier to hear possible leaks.
- Slowly inflate the bladder to approximately 0.5 Bar (7 PSI).
- Stop inflation by closing the Air Adaptor valve handle, then check for leaks on both ends of the Bladder, as well as the steam valve.
- If no leaks are found, turn off the air, remove the pressure regulator, and open the Air Adaptor valve handle to release the air pressure.
- **USE A PRESSURE REGULATOR! FAILING TO DO SO WILL DAMAGE THE BLADDER AND CREATE AN UNSAFE WORKING ENVIRONMENT.**



OPERATING INSTRUCTIONS

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

10. Add Covering Tape over both Cable Ties.



11. Add Lubricant to Bladder.

- Spray or pour Bladder Lubricant inside the Bladder through the coupling (**not the steam valve**).
- Both versions of Bladder Lubricant (bottle and spray can) can may be available depending on your area.
- Spread the lubricant evenly by rubbing the Bladder walls together.



12. Test Bladder is Properly Lubricated.

- Push the Bladder lateral inside the main using a rounded stick.
- Massage the Bladder by hand.
- Add more lubrication if necessary.



OPERATING INSTRUCTIONS

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

CONNECTING PICOTE PUSH RODS

Using Picote Push Rods allows you to push/pull, rotate, fill and extend your tools reach using only one hose/rod-system.

Align Hex Socket.

- Push Rod fittings have a hex socket that must be aligned.
- Left: Male-type connector
- Right: Female-type connector with turning lock ring

Push Fittings Together.

- Push Rods can be connected even when the locking ring is in the 'pre-locked' position.

Ensure Fittings are Secure.

- Make sure the fittings are completely pushed together and won't come loose if you try to pull them apart.
- Fittings can be disconnected by pulling the collar from the female fitting towards the locking ring.

Secure Locking Ring.

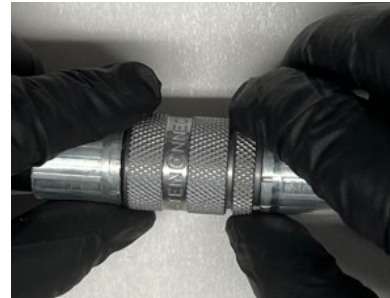
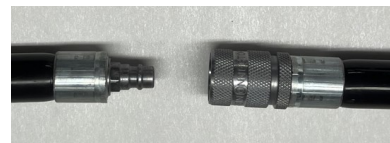
- Fittings have to be secured with the locking ring that can be found on the female fitting.

Lock Into Position.

- Screw the locking ring until it's completely turned against the collar to lock it in position.

Wrap Fittings.

- Additionally, you can wrap protective tape around each fitting to prevent resin from going in between the fittings.



OPERATING INSTRUCTIONS

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

CHART 1 - BLADDER INSTALLATION PRESSURES FOR “T” & “Y” BLADDERS AMBIENT CURED (STEAM PORT CLOSED)

BLADDER SIZE (mm/in)	PRESSURE (BAR)	PRESSURE (PSI)	BLADDER SIZE (mm/in)	PRESSURE (BAR)	PRESSURE (PSI)
70 / 50 (3/2")	0.75	11	225 / 70 (9/3")	0.60	9
70 / 70 (3/3")	0.65	10	225 / 100 (9/4")	0.45	7
100 / 50 (4/2")	0.80	12	225 / 150 (9/6")	0.35	5
100 / 70 (4/3")	0.65	10	225 / 225 (9/9")	0.30	4
100 / 100 (4/4")	0.45	7	250 / 100 (10/4")	0.45	7
150 / 50 (6/2")	0.75	11	250 / 150 (10/6")	0.35	5
150 / 70 (6/3")	0.65	10	250 / 200 (10/8")	0.30	4
150 / 100 (6/4")	0.45	7	250 / 250 (10/10")	0.25	4
150 / 150 (6/6")	0.35	5	300 / 100 (12/4")	0.45	7
200 / 70 (8/3")	0.65	10	300 / 150 (12/6")	0.35	5
200 / 100 (8/4")	0.45	7	300 / 200 (12/8")	0.30	4
200 / 150 (8/6")	0.35	5	300 / 250 (12/10")	0.25	4
200 / 200 (8/8")	0.30	4	300 / 300 (12/12")	0.20	3

CHART 2 - STRAIGHT BLADDERS INSTALLATION PRESSURES

BLADDER SIZE (mm/in)	PRESSURE (BAR)	PRESSURE (PSI)
DN70 (3")	1.2	17
DN100 (4")	1.0	14
DN150 (6")	0.7	10

OPERATING INSTRUCTIONS

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

CHART 3 - BLADDER INSTALLATION PRESSURES FOR STEAM CURING (STEAM PORT OPEN)

Number of Rods	Pressure Setting (BAR)	Pressure Setting (PSI)	Temperature Setting (°C)		Temperature Setting (°F)	
			Min (Mean)	Max	Min (Mean)	Max
1	0.17	3	67 (72)	77	153 (162)	171
2	0.30	4	70 (75)	80	158 (167)	175
3	0.32	5	72 (77)	82	162 (171)	180
4	0.34	5	75 (80)	85	167 (175)	184
5	0.37	5	77 (82)	87	171 (180)	189
6	0.39	6	80 (85)	90	175 (184)	194
7	0.41	6	82 (87)	92	180 (189)	197
8	0.43	6	84 (89)	94	183 (193)	202
9	0.46	7	87 (92)	97	189 (197)	206
10	0.48	7	89 (94)	99	193 (202)	210
11	0.50	7	92 (97)	102	197 (206)	215
12	0.53	8	94 (99)	104	202 (210)	219
13	0.55	8	97 (102)	107	206 (215)	225
14	0.57	8	99 (104)	109	210 (219)	228
15	0.60	9	101 (106)	111	214 (224)	232

STEAM CURING

Picote Push Rods and Connection Collar 2.0 can be used with steam to speed up the curing process.

- When using the Picote Midi Steamer you need to increase the inflation pressure and set temperature based on the number of Push Rods being used.
- Use a flat screwdriver to open or close steam valve.
- To open it, turn the slot counterclockwise until it stops.
- To close, turn the slot clockwise until it stops.
- **Read and follow all instructions of the Picote Midi Steamer manual before steam curing with the Midi Steamer.**



OPERATING INSTRUCTIONS

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Steam Curing Example

- **Bladder Size:** 150mm x 100mm (6 x 4")
- **Connection Collar Size:** 150mm x 100mm (6 x 4")
- **Bladder Inflation Pressure** (*Chart 1*): 0.45 Bar (7 PSI)
- **Required Curing Temperature:** 70°C (158°F)
- **Distance from Entry to Damaged Connection:** 15m (49ft)
- **Midi Steamer Inflation Pressure:** 0.93 Bar (13.5 PSI)
- **Midi Steamer Temperature Setting:** 94°C (201°F)

Steam Curing: Configuration & Settings

- **# of Picote Push Rods required:** 10
- **Required inflation pressure for 10 Push Rods** (*Chart 3*): 0.48 Bar (7 PSI)
- Therefore, the correct pressure setting on Midi Steamer is:
 - Ambient Inflation Pressure + Inflation Pressure for 10 Picote Push Rods
= Pressure of 0.45 Bar (6.5 PSI) + 0.48 Bar (7 PSI) = 0.93 Bar (13.5 PSI)
- **Required curing temperature** (*at Bladder*): 70°C (158°F)
- **Picote Midi Steamer Settings** (*Chart 3*):
 - Set temperature for 10 Push Rods: 94°C (201°F).
 - Achieving 70°C (158°F) at Bladder.

MAINTENANCE

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

WARNING

This section contains important safety information.
Failure to comply could result in serious injury or death.



BLADDER MAINTENANCE

- Before performing any maintenance always check that air supply line is disconnected and turned off.
- Clean the Connection Collar before and after each use to help increase the Bladder life.
- Primary cleaning method should be a damp cloth with soap or wet wipes to clean the surfaces.
- Using Picote Bladder Release Agent prevents resin from sticking to the Bladder and makes cleaning and Bladder removal easier.

- Add approximately 0.2 Bar (2.9 PSI) air to the Bladder.



- Clean Bladder with wet wipes or damp cloth with soap.



- After cleaning, check Bladder for damage.



MAINTENANCE

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

WARNING

This section contains important safety information.
Failure to comply could result in serious injury or death.



Repairing A Damaged Bladder

A damaged Bladder can often times be repaired using Picote Silicone Glue and a patch piece.

- The Silicone Glue takes approximately 12 hours to cure at room temperature per 1 mm (1/32") applied thickness.
- **Recommended curing time is 24 hours minimum.**
- Damage (e.g. holes) can be repaired with Bladder Silicone Glue and a patch piece (excess Bladder material)



Tools needed:

- Nitrile gloves
- Rag/towel
- Scissors
- Sharpie
- Bladder Silicone Glue
- Acetone
- Plastic bag/sheet

1. Thoroughly clean outside of the Bladder with acetone.

MAINTENANCE

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

2. Turn the Bladder inside-out to access the damaged area.



3. Thoroughly clean inside of the Bladder with acetone.



4. Measure the area being repaired. Patch piece should overlap the damaged area around 10mm (1/2").



5. Cut a piece of silicone material (excess Bladder material) to the appropriate size with scissors.



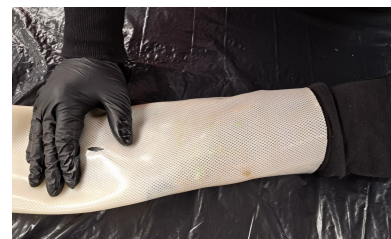
MAINTENANCE

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

6. Cut two pieces of a plastic bag or sheet larger than are to be repaired.



7. Place the plastic sheet inside the Bladder, over the area to be repaired.



8. Place the repair patch on another piece of plastic sheet and apply Bladder Silicone Glue onto the patch.



9. Place the patch over the repair area with a piece of plastic sheet.



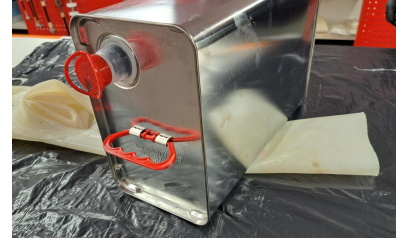
10. Press down to apply patch over the damaged area.



MAINTENANCE

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

10. Place a weight on top of the repaired area. The Silicone Glue takes approximately 12 hours to cure at room temperature per 1mm (1/32") applied thickness. **Recommended curing time is 24 hours minimum.**



APPENDIX 1: A TYPICAL REPAIR INSTALLATION

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

WARNING

**This section contains important safety information.
Failure to comply could result in serious injury or death.**



The following pages contain an example of one type of resin and Connection Collar System. Always check your country regulations, requirements and application restrictions regarding the use of the Connection Collar System for this application.

Follow the instructions provided by the manufacturer and supplier of the resin system that is being used.

The Connection Collar System used in this manual is presented for educational purposes only to allow you to visualize the general process.

- Always wear protective equipment when handling resin! Chemicals and fumes may cause eye, skin and lung irritation.
- Ensure good ventilation at area where resin is mixed and handled.
- Always perform a test run before installing the Connection Collar so that you are certain you can set-up and navigate to the desired spot within the resin curing time.
- Curing time depends on the resin that is used and prevailing temperature.
- Always read resin specification to ensure compatibility and proper operation.
- NEVER use resin that has not been properly stored or has expired.
- Ensure that you have all the necessary equipment available and everything is set up before wetting out to ensure a good end result.

APPENDIX 1: A TYPICAL REPAIR INSTALLATION

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Tool Preparation

Connection Collar Installation Tool

- Select correct Bladder based on pipe sizes and configuration.
- Make sure that the inside of the Bladder is well lubricated, if it feels sticky, add Picote Bladder Lubricant as needed.
- Attach the Air Adapter and Pressure Regulator to the Installation Toolhead assembly.
- With the Bladder slightly inflated: 0.1 Bar (1.4 PSI), use a rounded stick to fully push the lateral nose inside the Bladder. Be careful not to damage the Bladder during this step.
- Push the lateral nose fully into Bladder body and then remove the stick. For Y-bladders, the nose should be pushed inside towards the tail.



Applying Bladder Release Agent

- Apply Picote Bladder Release Agent and spread evenly over main body area where Connection Collar will be placed. This promotes grip on the Connection Collar during installation and improves release of the Collar after curing. It also helps prevent resin staining the Bladder.
- Avoid excess Bladder Release Agent outside of Connection Collar area.
- Bladder Release Agent will prevent adhesion of future coating, lining, or point repairs.
- Any Bladder Release Agent in the pipe will need to be removed before any subsequent rehabilitations.



Adding the Connection Collar

- Add a small amount of air: 0.1 Bar (1.45 PSI) to inflate main Bladder.
- Remove the Connection Collar from packaging.
- Position Collar to correspond with Connection Collar Assembly layout.



APPENDIX 1: A TYPICAL REPAIR INSTALLATION

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

- Fold over end of Connection Collar to use as a pulling point and then slide the Connection Collar onto the Bladder.



- Line up the Collar & Bladder lateral opening.



- Add a small amount of air (0.1 Bar / 1.45 PSI) to inflate the main Bladder.



- Ensure that the Connection Collar is properly positioned on the Bladder so that the connection opening and lateral Bladder portion are aligned.



- Add more air to pressurise the Bladder up to 0.2 Bar (2.9 PSI).
- You can deflate and adjust before re-inflating as needed.
- There should be no wrinkles or twisted areas.
- Leave approximately 0.2 Bar (2.9 PSI) pressure in the Bladder.
- **Caution! Do not over pressurize the Bladder to prevent stretching the Connection Collar. Over stretching the Connection Collar may cause wrinkles.**



APPENDIX 1: A TYPICAL REPAIR INSTALLATION

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Wetting Out Connection Collar

- Mix resin of choice. The key is to thoroughly mix the resin according to the manufacturer's instructions.
- With the Bladder still inflated, spread the resin evenly and ensure that all of the felt on the Connection Collar is properly saturated.
- Avoid too little or too much resin. If there is too much resin, you can wipe off the excess.
- **Be sure to use suitable chemical resistant gloves to prevent resin contact with your skin.**
- Make sure there are no dry spots on the Connection Collar.



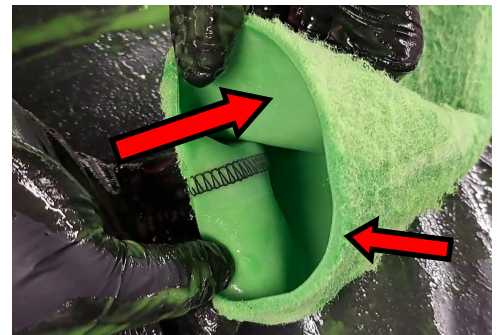
APPENDIX 1: A TYPICAL REPAIR INSTALLATION

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Wetting Out Alternative Method (Wetting Out Collar First)

You can also choose to wet-out the Connection Collar first and then slide it onto the Bladder assembly. For this method, remove Connection Collar from packaging and apply your thoroughly mixed resin of choice.

- Apply your thoroughly mixed resin of choice.
- Spread the resin evenly and ensure the Connection Collar is properly saturated. Avoid too little or too much resin. If there is too much resin, you can squeeze off the excess.
- Check that the Connection Collar is fully wet-out by inspecting the reverse side and ends for any dry spots.
- Slide the Connection Collar onto the Bladder and line up the Collar & Bladder lateral opening.



APPENDIX 1: A TYPICAL REPAIR INSTALLATION

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Inverting Wetout Connection Collar

- Lower Bladder pressure to between 0.1 to 0.2 (1.5 to 2.9 PSI).
- Folding manually and with the help of a rounded stick, push the lateral Bladder portion along with Connection Collar into the main body of the Bladder.
- Make sure both the Bladder and the lateral portion of the Connection Collar are inverted tightly together.
- This step can be easier to perform while adjusting Bladder pressure using the Picote Pocket Vacuum.
- Release Pressure Regulator and attach Pocket Vacuum.
- Vacuum down the Bladder Assembly and remove the rounded stick.
- Be sure not to pull out Bladder or Connection Collar when removing.



APPENDIX 1: A TYPICAL REPAIR INSTALLATION

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Securing Connection Collar

- If not already attached, attach the Pocket Vacuum and fully vacuum down the Bladder while folding as shown.
- Fold whole assembly together as tightly as possible.
- Use blue **Picote Hybrid Tape** to secure Connection Collar to Bladder assembly.
- Picote Hybrid Tape is wrapped around each end of the wetout Connection Collar overlapping approximately 50% of the length, while keeping Bladder and Connection Collar together as tightly as possible.



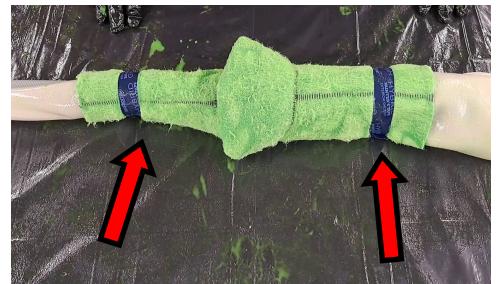
APPENDIX 1: A TYPICAL REPAIR INSTALLATION

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

- Avoid getting resin between the tape layers.
- Tear off and discard any excess tape.



- Secure both ends of the assembly.



APPENDIX 1: A TYPICAL REPAIR INSTALLATION

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Transporting Connection Collar

- Using a plastic bag or sheet, cover and transport the assembly to the installation site.
- **Ensure the steam port is either open or closed depending on your curing method!**
- Using a standard flathead screwdriver, turn the port on the Connection Collar Tool Head **counterclockwise** in order to enable steam flow during curing.
- For ambient curing, make sure steam port is fully closed (steam port full closed in clockwise direction).
- Place Connection Collar Assembly in pipe and attach first Push Rod.
- Push Rods have a hexagonal connection design on each end - you may have to rotate slightly to get them to align and connect.



APPENDIX 1: A TYPICAL REPAIR INSTALLATION

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

- Push Rod connectors should be locked at each connection by turning the locking ring **clockwise**.
- Continue adding the appropriate number of Push Rods to be able to reach the connection repair location.
- Alternatively, you can pre-measure and assemble the complete Push Rod string.

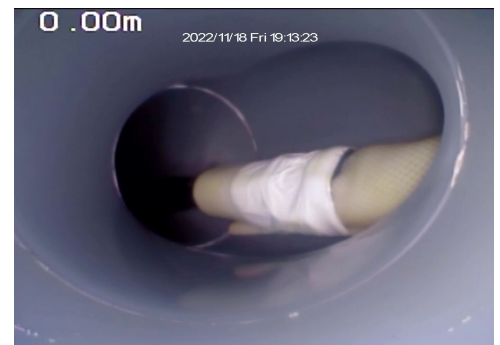


APPENDIX 1: A TYPICAL REPAIR INSTALLATION

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Connection Collar Installation

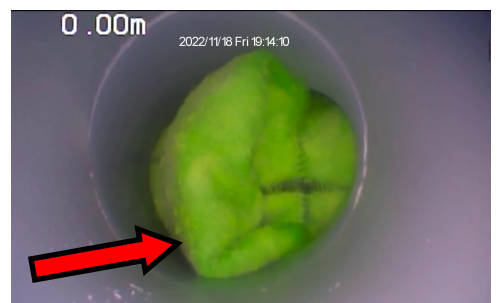
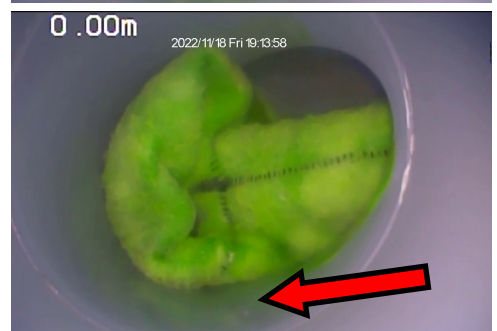
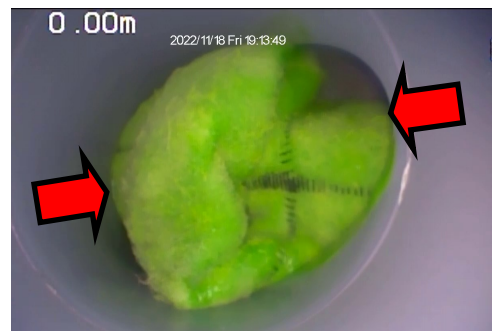
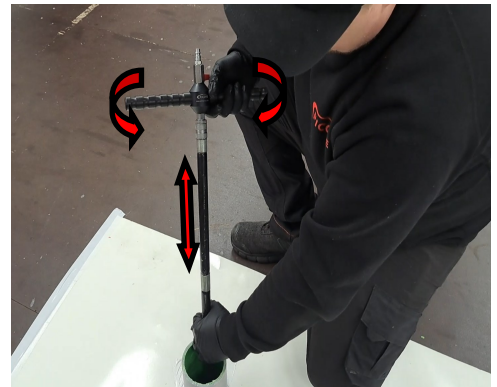
- While viewing from the lateral connection via a CCTV camera, ensure that the Connection Collar Assembly has reached the connection to be repaired.
- For difficult installations, such as reaching a repair area through multiple bends, you can apply a silicone friendly lubricant of your choice to the front portion of the Bladder to help the assembly glide past bends and reach the repair area.



APPENDIX 1: A TYPICAL REPAIR INSTALLATION

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

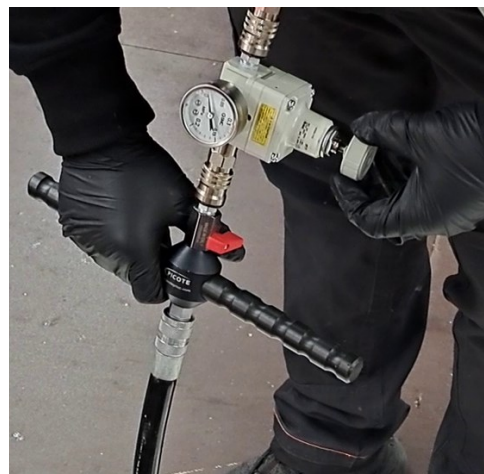
- Add the Turning Handle.
- Position the Connection Collar using a C.C.T.V. camera viewed from the lateral connection side.
- Push or pull to fine tune the position while rotating the Turning Handle as needed in order to align the lateral Bladder opening with the connection opening.



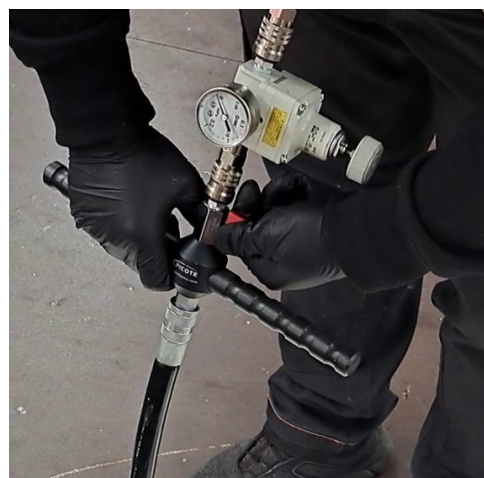
APPENDIX 1: A TYPICAL REPAIR INSTALLATION

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

- Once you are satisfied with the positioning, check that the air valve on the Turning Handle is in the closed position and only then connect the Pressure Regulator and air supply.
- Set initial air pressure to approximately 0.1 Bar (1.5 PSI).



- While watching the CCTV, begin slowly feathering air into the Bladder by opening and closing the air valve on the Turning Handle.
- Don't fully inflate the Bladder! Just feather in enough air pressure to start the inversion movement and then stop.



- Inspect the Connection Collar alignment as it just barely begins to inflate.
- As long as you haven't added too much air pressure, you should still be able to make small adjustments on the alignment by pulling, pushing or turning the Turning Handle at this point.



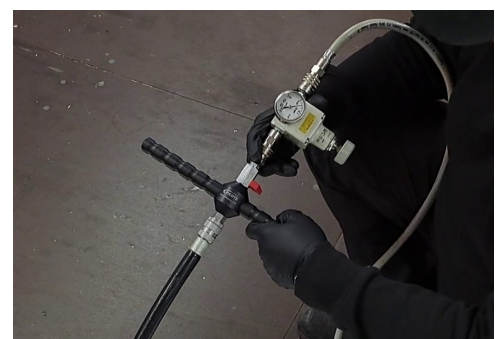
- When Connection Collar lateral is as centred as possible, start adding additional pressure to fully inflate the Bladder.
- Sometimes more pressure may be necessary to open the Bladder. For example, as Bladder size decreases, needed inflation pressure will actually increase. Refer to **Chart 1, Page 19** for recommended standard Bladder curing pressures.
- **Never use than the maximum Bladder pressure rating!**



APPENDIX 1: A TYPICAL REPAIR INSTALLATION

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

- Bladder inflation.
- Bladder fully inflated. Make sure Bladder is fully opened.
- **When installing double Connection Collars, make sure to check both lateral connections with CCTV.**
- Adjust the Pressure Regulator to the final curing pressure.
- Check the CCTV camera to ensure that the Bladder lateral has fully inflated and inverted to the connection segment, while also inflating the main Bladder.
- The Installation Tool Air Adapter is designed to replace the Turning Handle before the curing process, enabling you to do multiple installations.
- This allows the Turning Handle to be used for the next installation while the previous one is curing.
- To do this, make sure the air valve is closed on the Installation Tool Air Adaptor.



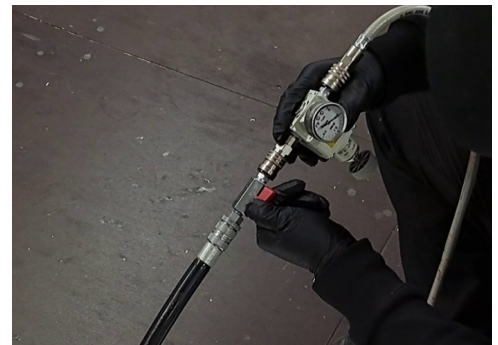
APPENDIX 1: A TYPICAL REPAIR INSTALLATION

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

- Disconnect the Turning Handle while quickly capping off the Push Rod air channel with your finger.
- Then, add the Installation Tool Air Adaptor.



- Simply reconnect the Air Pressure Regulator and air hose.
- Re-open the air valve and ensure the Bladder has re-pressurized to the correct curing pressure.

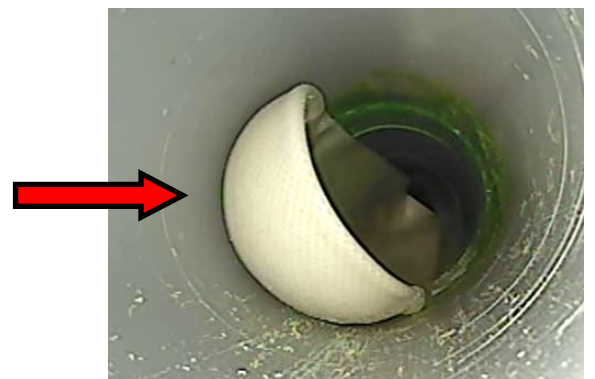
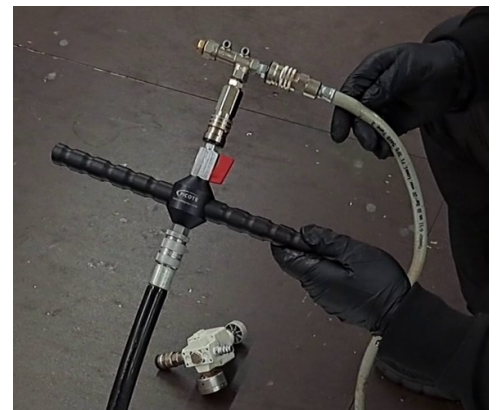


APPENDIX 1: A TYPICAL REPAIR INSTALLATION

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Post Curing Bladder Removal

- After the Connection Collar has been cured, adjust the Pressure Regulator to zero and remove.
- Attach the Turning Handle, Pocket Vacuum and air hose to vacuum down the Bladder.
- Once the Bladder is on full vacuum, push or pull in the direction of pipe flow to release.
- For example, in repair with a 45 degree lateral, you need to push away from the connection to help release the lateral bladder portion so it will enter main pipe smoothly, otherwise the bladder may be damaged.



APPENDIX 1: A TYPICAL REPAIR INSTALLATION

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

- You can use the Turning Handle during removal as needed.



- Push/Pull to loosen and remove the Bladder Assembly.



APPENDIX 1: A TYPICAL REPAIR INSTALLATION

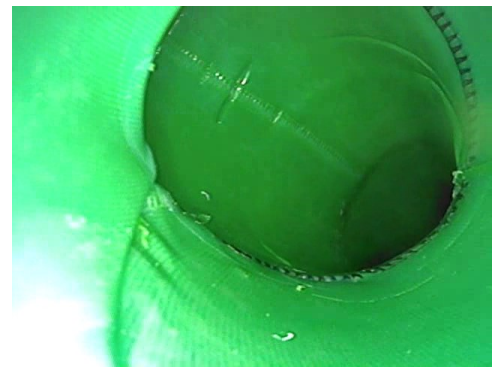
SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Final Inspection

- Check the cured Connection Collar with the CCTV camera.
- The connection should now be sealed and repaired.
- Check both from the main and from the lateral.



View looking down the Main Line.



View looking down the Lateral Line.

WARRANTY POLICY & PROCEDURE

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Limited Warranty:

Picote warrants to the original End User that the Product purchased by such End User will operate in accordance with, and substantially conform to their published specifications when shipped or otherwise delivered to the End User and for a period of one (1) year, except electric motors and batteries for which the warranty period shall be six (6) months, provided, however, that Picote does not warrant any claim or damage under this Warranty if such claim or damage results from:

1. Consumable parts or normal wear and tear resulting from use of the Products,
2. Regular periodic maintenance of Products,
3. Misuse, neglect, or improper installation or maintenance of the Products, or use of Products not for their intended purpose,
4. Products that have been altered, modified, repaired, opened or tampered with by anyone other than Picote or an authorized Picote Service Centre, or unsuitable or unauthorized spare parts, accessories or third party products when using the Products or;
5. the use of the Products not in compliance with their respective Documentation, user manuals, safety and maintenance instructions, and any usage restrictions contained therein, or
7. accident, fire, power failure, power surge, or other hazard.

Otherwise, the Products are sold AS IS. End User is responsible for using the Products within their specifications and instructions as contained in the Documentation.

EXCEPT AS SPECIFIED IN THIS WARRANTY, ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS, AND WARRANTIES INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON INFRINGEMENT, SATISFACTORY QUALITY OR ARISING FROM A COURSE OF DEALING, LAW, USAGE, OR TRADE PRACTICE, ARE HEREBY EXCLUDED TO THE EXTENT ALLOWED BY APPLICABLE LAW. TO THE EXTENT AN IMPLIED WARRANTY CANNOT BE EXCLUDED, SUCH WARRANTY IS LIMITED IN DURATION TO THE WARRANTY PERIOD. BECAUSE SOME STATES OR JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, THE ABOVE LIMITATION MAY NOT APPLY. This disclaimer and exclusion shall apply even if the express warranty set forth above fails of its essential purpose.



Please Contact:

Your Reseller / Salesperson or Picote

www.picotegroup.com



International Offices

Finland. United Kingdom. USA.

Technical Support

support@picotesolutions.com

Production & R&D

Pienteollisuustie 24
06450 Porvoo, Finland
support@picotesolutions.com

E-Learning

Free Connection Collar 2.0 - Equipment
101 E-learning course is available at:
www.picoteinstitute.com

Claims

claims@picotesolutions.com

Authorised Resellers:

www.picotegroup.com/resellers