

## PURESTREAM SYSTEM - ASSEMBLY GUIDE



**INSTRUCTION VIDEO LINK:**

**[www.cagpurification.com/INSTALLMENT--PROCEDURE--VIDEOS.aspx](http://www.cagpurification.com/INSTALLMENT--PROCEDURE--VIDEOS.aspx)**

**OR**

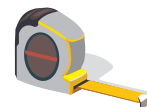
**SCAN CODE BELOW**



# NECESSARY TOOLS FOR INSTALLATION

*We suggest the use of the following tools for a correct installation of Aircom piping systems*

- CHAMFERING CONE for a correct external and internal pipe de-burring
- SPECIFIC WRENCH for PURESTREAM by Aircom ring nut, which allows for efficient tightening.
- SOCKET DEPTH METER helps to indicate when the pipe is fully in the fitting
- SCREWING DRILL for the quick branches installation.  
HOLLOW MILL 3/8" - 1/2" dia. - essential in assembling quick branches; it creates the hole through which the ideal air quantity flows from the descent.
- SLOT HEAD SCREWDRIVER - necessary to open the brackets during pipe clamping.
- HEXAGONAL MALE WRENCH for the tightening of quick branches.
- UNIVERSAL PLIER to hold the fitting body during the assembling.
- GASKET LUBRICANT – It insures that the pipe goes fully into the fitting  
We suggest the use of neutral hand soap and water because it contains no oils or greases and keeps the piping system clean.
- FELT TIP PEN to mark assembling fittings and accessories.
- Measuring Tape to measure dimensions, depths, slopes., etc.
- PIPE CUTTER for a correct vertical pipe cut.
- DEBURRING TOOL to clean the hole created for the quick branch.





## INSTALLATION DONE WELL

PURESTREAM by Aircom helps to reduce installation, time, maintenance and running costs.

However the installation has to be well-done by following the supplied instructor with the maximum precision in order to obtain the requested safety, reliability and performance results.

Pipelines have to follow a light slope towards a condensation collection and draining point.

It's not recommended to install Purestream Pipe underground as this prevents any maintenance or modification which may be required. If it is installed underground, it is required to provide inspection sump pits.

Avoid any condition which may cause pipeline misalignment.

Support all heavy accessories assembled on the line before and after their position (valves, filters, hoses)

Seal all threads accurately using suitable products in correct quantities

All maintenance operations and PURESTREAM pipeline modifications must be performed by experienced trades people.

On larger installations, it is recommended to install ball valves so that certain sections can be isolated without shutting down the whole system.

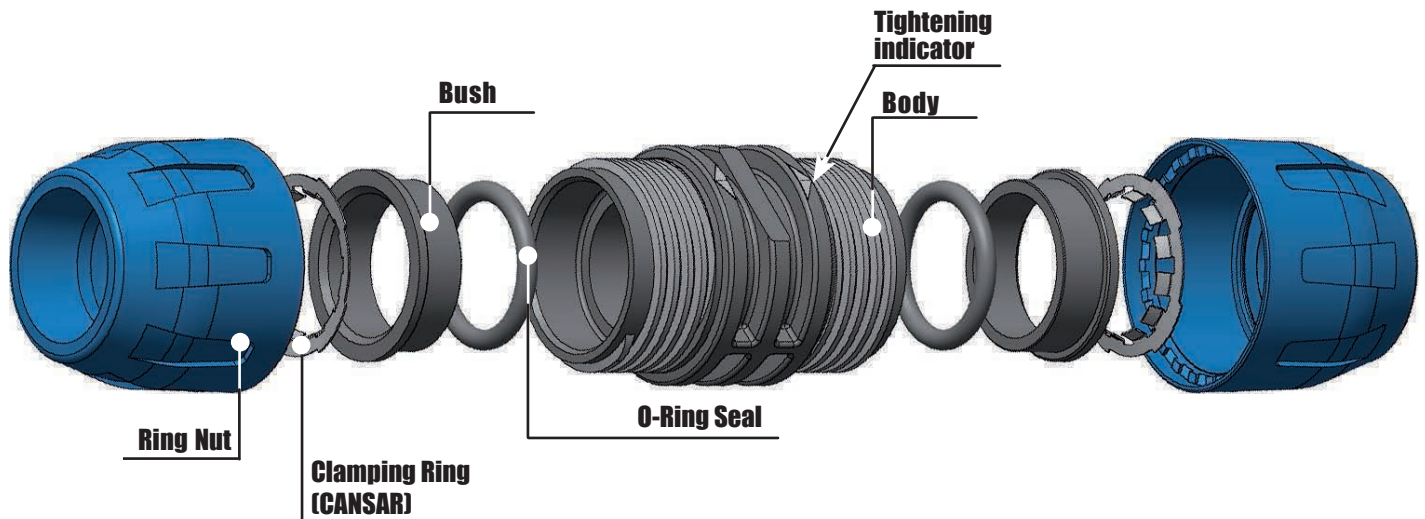
### PIPE SIZES & PRESSURE RATING:

20, 25, 32, 40 mm are rated for 174 psi. 50, 63, 80, 110 mm are rated for 145 psi.



## FITTINGS

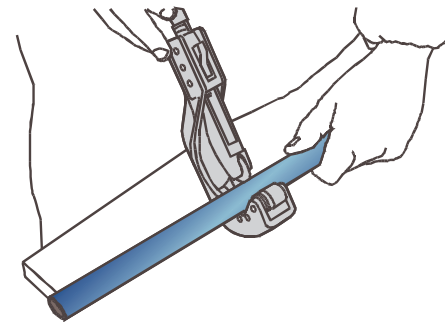
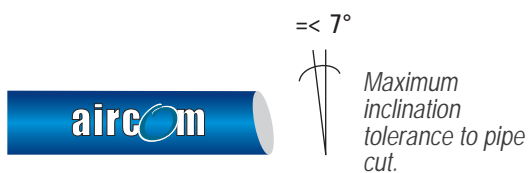
PURESTREAM fittings may be assembled both on aluminum and "CLASSIC" line PVC pipes.  
PURESTREAM system is extremely simple and quick to install, doesn't need the use of expensive and complicated tools.  
A few operations and the fitting is assembled



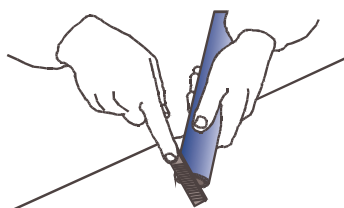
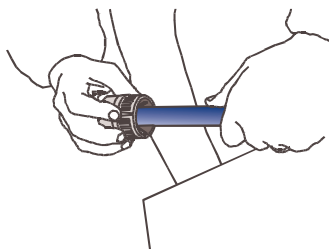
Fittings are NOT to be taken apart!  
This is only a diagram SHOWING the parts within the fittings.

- 1 Make a neat and straight cut at the desired size, afterwards check the pipe's surface condition (there have not to be any visible scratchings, abrasions or bruises which may cause leaks).

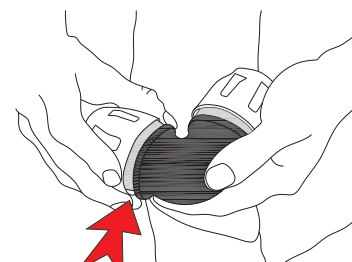
The cut has to be done, as much as possible, with the right angle (at 90° to the pipe axis)



- 2 Chamfer the pipe extremity on the pipe external surface at a 45° angle and remove any scrap along the internal diameter edge.  
Remove cut scraps, dust and swarfs which may be present inside the pipe; this is important in order to avoid future problems to pneumatic equipments.



- 3 Tighten the fitting ring nut by hand.

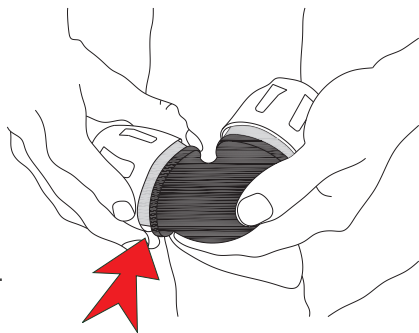


**PURESTREAM**  
pipes and fittings for compressed air

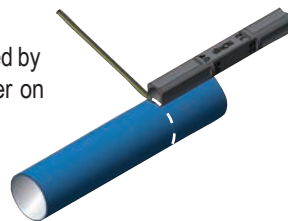


**4**

Unscrew the nut, by making a half counterclock turn. This will increase the distance between the body and the nut in the area indicated by the arrow. See diagram.



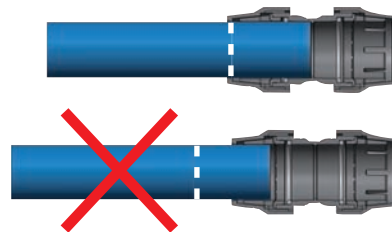
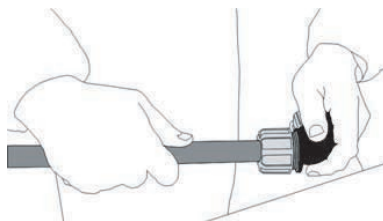
Mark the depth indicated by the socket depth meter on the pipe.



**SPRAY SOAP AND WATER ONTO THE PIPE AND INSIDE THE FITTING O-RING**

**5**

Introduce the pipe into the fitting pushing it to the stop at the end of the socket. To make it easier, lubricate the end of the pipe and/or the contact surface of the O-Ring gasket with a liquid soap solution or vaseline grease.



Do Not use sliding means like oils or greases of uncertain compatibility. If in doubt, please contact us.

**6**

Fully tighten the ring nut, using the appropriate Aircom wrench.



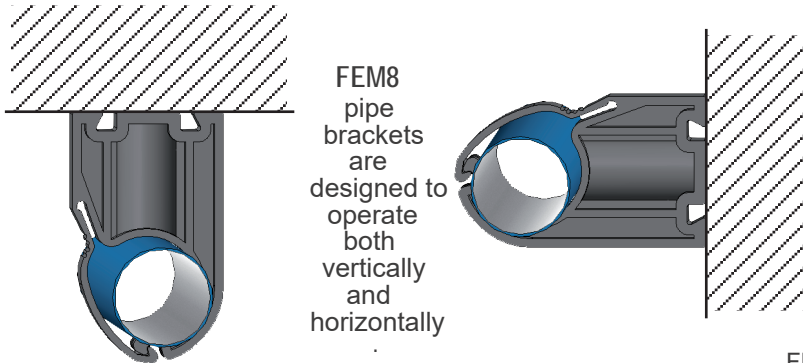
Connections made with PURESTREAM by Aircom system do not require any waiting period; they may be put under pressure immediately.



# BRACKETING SYSTEMS

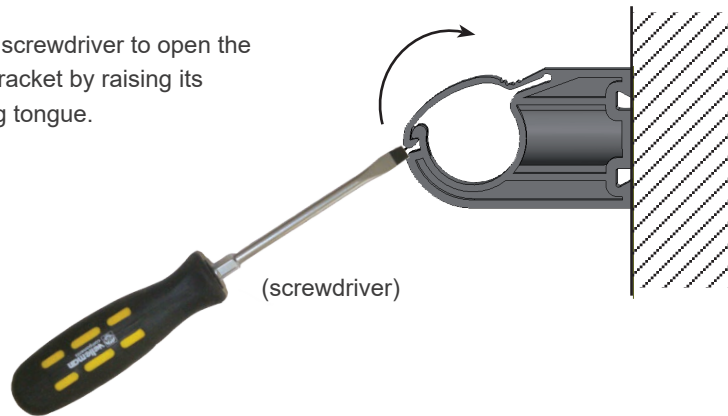
It is recommended to use the FEM8 pipe brackets but other clips or hangers may be used at the discretion of the installer as long as it meets piping industry standards.

**1**



**2**

Use a screwdriver to open the pipe bracket by raising its closing tongue.

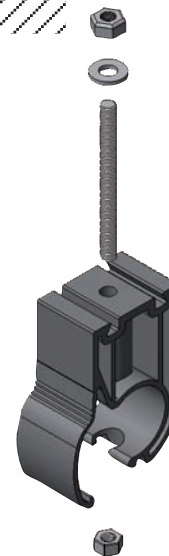


FEM 16-32 ADAPTER  
FEM 40-80 ADAPTER



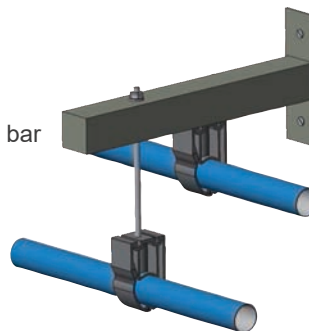
**3**

All pipe brackets packaging contain M8 hexagonal nut shipped loose which fits inside the bracket. It's also possible to use self-tapping screws with a screw anchor in case of installation on concrete wall.



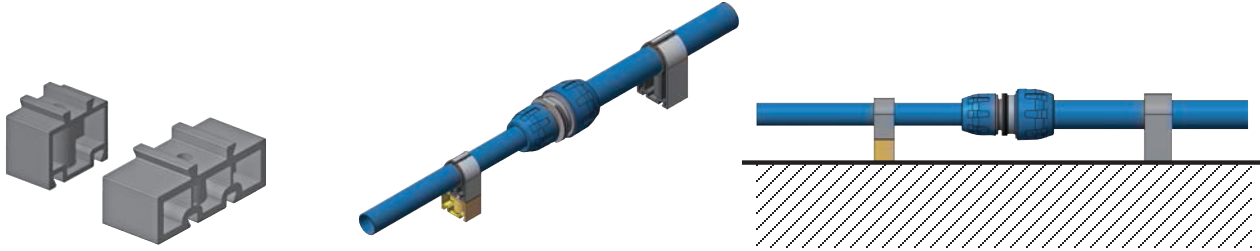
**4**

By using the above mentioned threaded bar with its lock nut it's possible to fix the pipe bracket to any clamping system.

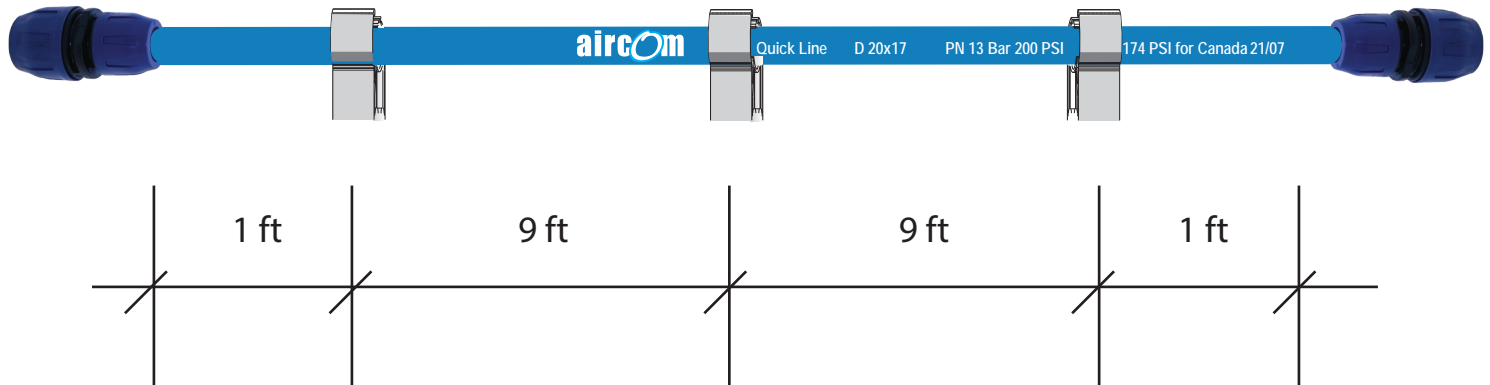




**5** (If needed) SPE spacers are also available to be added under the pipe bracket base.

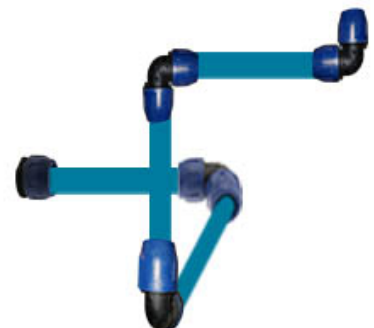


Brackets are positioned avoiding any contact with fittings or other accessories liable to block the sliding of the pipe.



For all pipe sizes three brackets per 20ft length positioned as shown above"

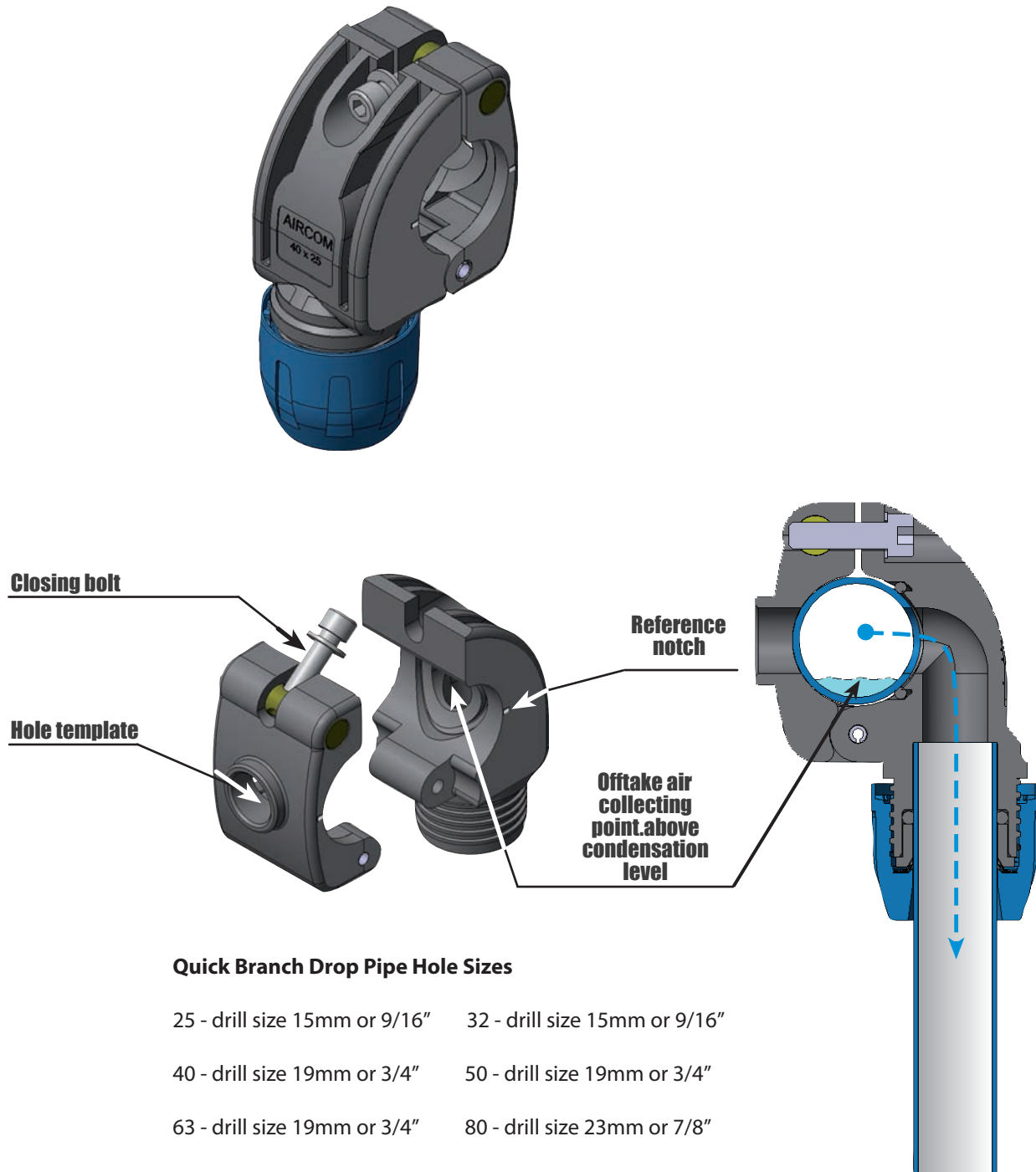
-Brackets/Support: If there are multiple fittings in a short run of pipe, extra bracketing & support must be provided. (see picture)



## QUICK BRANCHES

PURESTREAM by Aircom quick branches have been designed to allow the final user to get a quick drop-leg without cutting the main pipeline.

Moreover, thanks to its special design, the air offtake of the drop leg is above the condensation level to maintain excellent air quality.



### Quick Branch Drop Pipe Hole Sizes

25 - drill size 15mm or 9/16"	32 - drill size 15mm or 9/16"
40 - drill size 19mm or 3/4"	50 - drill size 19mm or 3/4"
63 - drill size 19mm or 3/4"	80 - drill size 23mm or 7/8"



Quick branches can also be used horizontally as a traverse beginning (with the hole in the upper part of the pipe) or as a condensation drainer (with the hole in the lower part of the pipe).





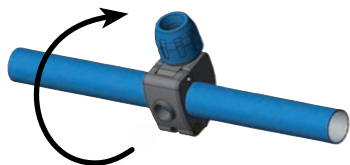
## INSTALLATION GUIDE



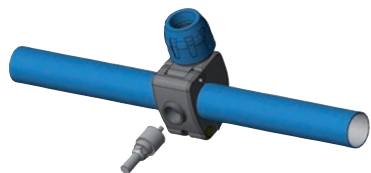
**1** Position the drop leg according to the appropriate requirement



**2** Mark the chosen position near the reference notches on the fitting



**3** Rotate the branch by 180° and position it near the reference marks on the pipe



**4** Hole the pipe by means of a hollow mill inside the template

25 - drill size 15mm or 9/16"      32 - drill size 15mm or 9/16"

40 - drill size 19mm or 3/4"      50 - drill size 19mm or 3/4"

63 - drill size 19mm or 3/4"      80 - drill size 23mm or 7/8"

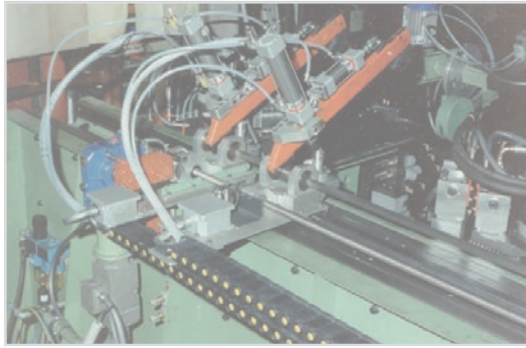


**5** Remove the branch and clean the hole with the help of a deburring tool



**6** Fix the branch and align the reference notches again to marks

## MANIFOLDS

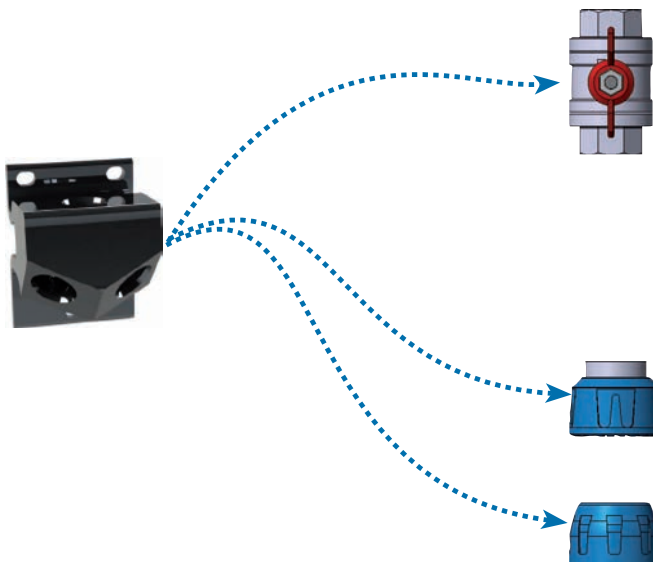


All aluminum manifolds assure an ideal compressed air supply for any use (pneumatic tools, air blow guns, pneumatic machines)

Their fixing both on wall or on workbenches grants high stability.

## COUPLING TYPES

Four different types of inlet connections may be used :



■ PREASSEMBLED BALL VALVE

■ NPT- National Pipe Thread Taper- ANSI B1.20.1  
GAS THREAD UNION

■ STANDARD PIPE CONNECTION



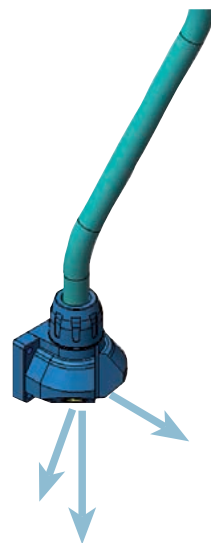
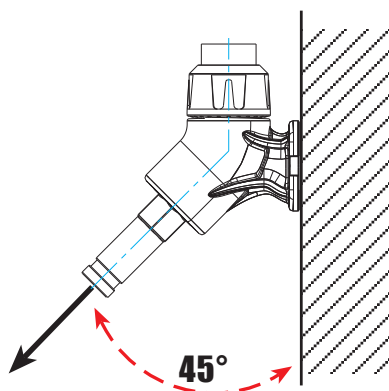
## MANIFOLD FOR WALL MOUNTING

Manifolds come with either a single or double  $\frac{1}{2}$ " outlet and also a  $\frac{1}{4}$ " hole for condensation discharge underneath (double outlets: needs to be drilled out).



### SAFETY

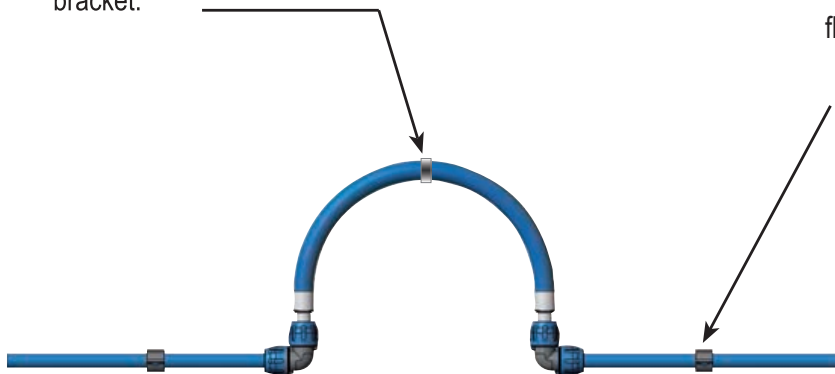
Manifolds have their outlets turned downwards at  $45^\circ$  to the wall; this characteristic reduces possible risks of accident for the operator in case of casual coupling ejection.



The manufacturer recommends a flex hose to allow expansion and contraction for any straight run of pipe 300 feet or more if pipe is installed in a non climate controlled environment with large temperature swings.

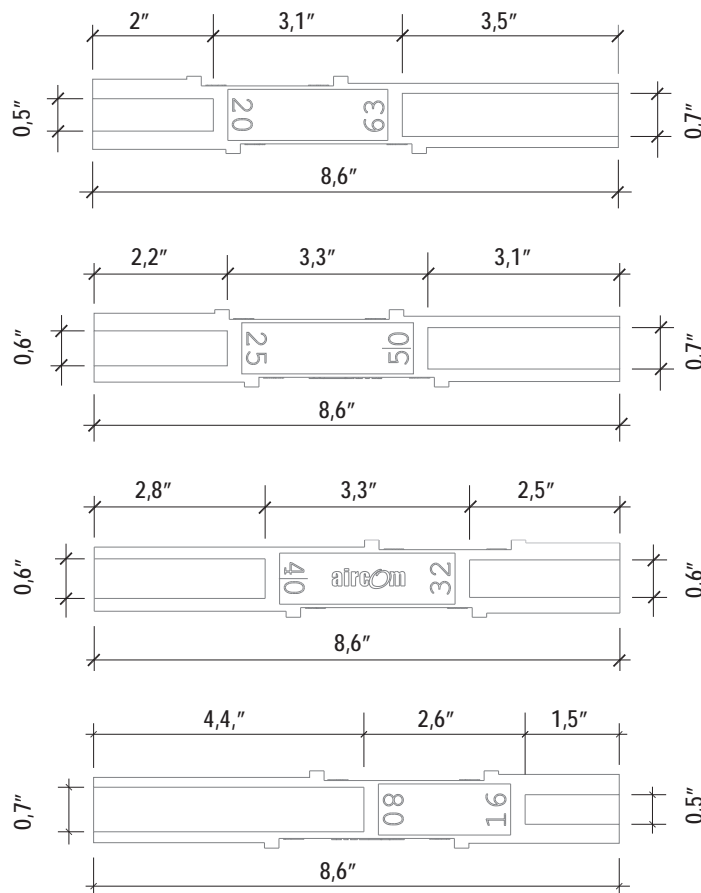
We suggest to fix flex hose in central position between its ends by using an electrician steel bracket.

We suggest to fix the aluminum pipelines by positioning Aircom pipe brackets near the two elbows connected to the flex hose.



## ACCESSORIES

### Pipe insertion meter

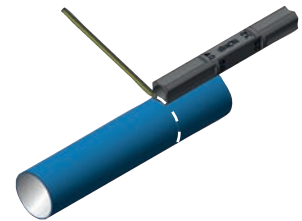


One tool does all 8 sizes

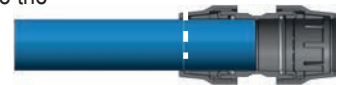
Purestream "insertion meter" is a necessary tool for safe and proper fittings assembly.



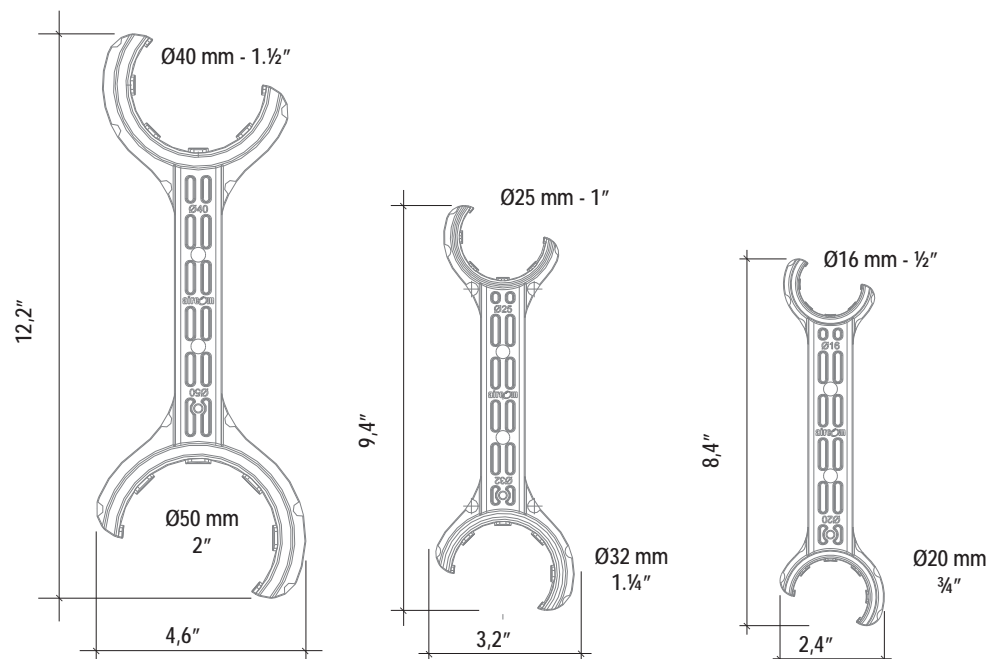
The "insertion meter" provides a correct marking of the fittings insertion depth on the pipe, for each pipe size.



The mark will be done with any common marker or felt tip pen and should appear close to the nut end in order to check the correct depth of the pipe insertion into the fitting.



### Wrench (max dimensions)



PURESTREAM wrench allows a correct nut tightening without any damage of the fitting.

The wrench is exclusively designed for PURESTREAM by Aircom system.

