

AIRNET



Installation and Assembly Guide

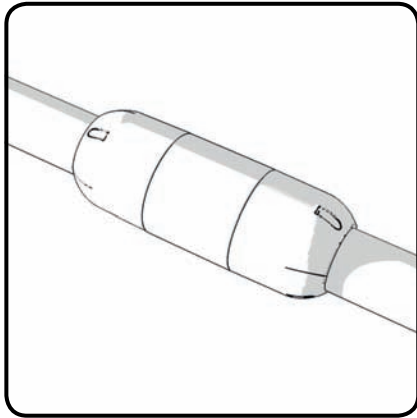
www.airnet-system.com

fast / *easy* / *reliable*

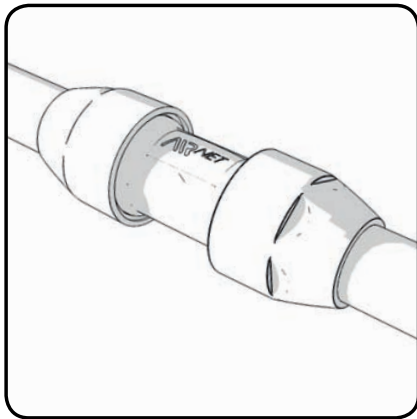
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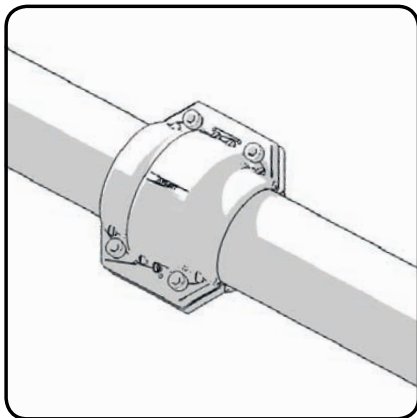
NEED TO KNOW



Diameters 20-25mm and 63 - 80mm
3/4" - 1" and 2 1/2" - 3"
(Classic)



Diameters 40-50mm / 1 1/2" - 2"
(PF Series)



Diameter 100mm / 4"

NEED TO KNOW

PRE-INSTALLATION

INSTALLATION

SAFETY & SECURITY

What is the furthest point pressure drop?

The furthest point **pressure drop** is the difference in pressure between the point of generation and the furthest point in your installation.

A high **pressure drop** means the regulating pressure on the compressor needs to be set higher to compensate for the **pressure drop**.

As a 1 bar (15 psi) additional operating pressure results in about 7% higher energy consumption, **pressure drops** drastically increase the electrical bill.

The **pressure drop** is influenced by various factors which we can classify from highest to lowest impact:

The pipes' inner diameter

Increasing the pipes' inner diameter reduces the **pressure drop** but increases the investment.

Free air delivery

The air demand of all downstream equipment connected to the portion of network.

The friction factor

Related to the pipe's material. Aluminium has a very low friction factor as opposed to galvanized pipes.

The length of the network

The longer the network, the higher the **pressure drop**.

The structure

It is recommended to build a ring in order to reduce your **pressure drop**.

Working pressure

When the working pressure is lower, the **pressure drop** increases.

PRE- INSTALLATION

NEED TO KNOW

PRE-INSTALLATION

Dilatation and Expansion loops

Long straight pipes can expand or contract due to temperature variations. To compensate for this effect, expansion loops are required. The number of expansion loops depends on the total length of the straight line and the maximum temperature variation. An expansion loop is a U-shaped construction that compensates the variation in length. They look like this:



INSTALLATION

The below table clarifies the maximum possible straight distance vs. the temperature variation. When the length of the straight line exceeds the maximum, expansion loops are required to compensate for the variation in length.

DT	Ø20 mm / ¾"	Ø25 mm / 1"	Ø40 mm / 1½"	Ø50 mm / 2"	Ø63 mm / 2½"	Ø80 mm / 3"	Ø100 mm / 4"
5°C / 41°F	211 m / 692 ft	168 m / 551 ft	187 m / 614 ft	150 m / 492 ft	119 m / 390 ft	94 m / 308 ft	75 m / 247 ft
10°C / 50°F	159 m / 522 ft	127 m / 417 ft	141 m / 463 ft	113 m / 371 ft	90 m / 295 ft	71 m / 233 ft	57 m / 186 ft
20°C / 68°F	107 m / 351 ft	85 m / 279 ft	95 m / 312 ft	76 m / 249 ft	60 m / 197 ft	47 m / 154 ft	38 m / 123 ft
30°C / 86°F	80 m / 262 ft	64 m / 210 ft	71 m / 233 ft	57 m / 187 ft	45 m / 148 ft	36 m / 118 ft	29 m / 94 ft
40°C / 104°F	64 m / 210 ft	52 m / 171 ft	57 m / 187 ft	45 m / 148 ft	36 m / 118 ft	29 m / 95 ft	23 m / 76 ft

SAFETY & SECURITY

INSTALLATION

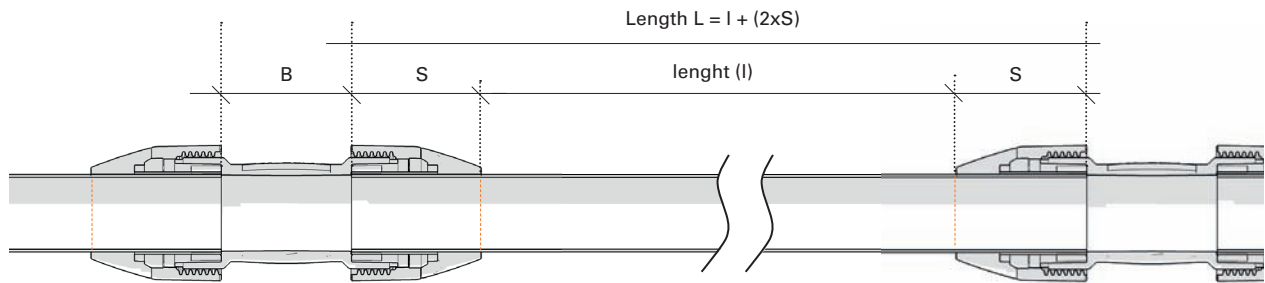
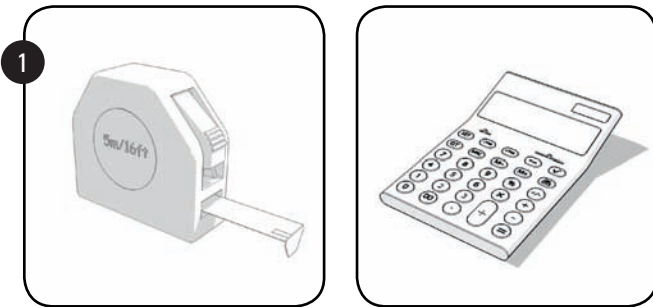
Diameters 40-50mm / 1 1/2" - 2"
(PF Series)

NEED TO KNOW

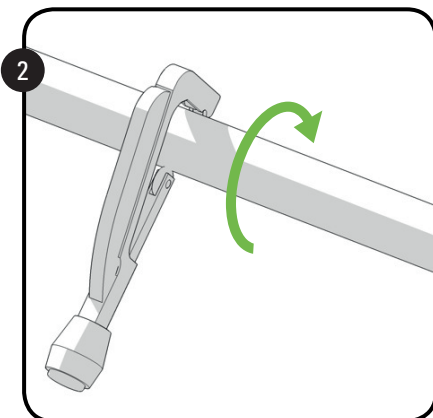
PRE-INSTALLATION

INSTALLATION

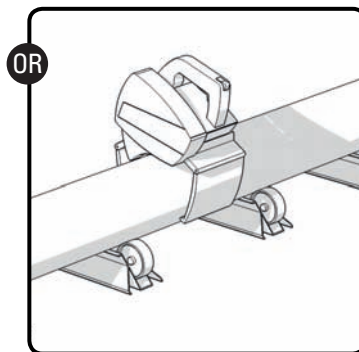
SAFETY & SECURITY



Ø	S	B
40mm / 1 1/2"	63mm / 2 1/2"	80mm / 3"
50mm / 2"	78mm / 2 5/8"	80mm / 3"

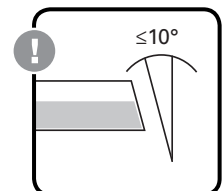


Ø 20-50 mm 2810 0040 00



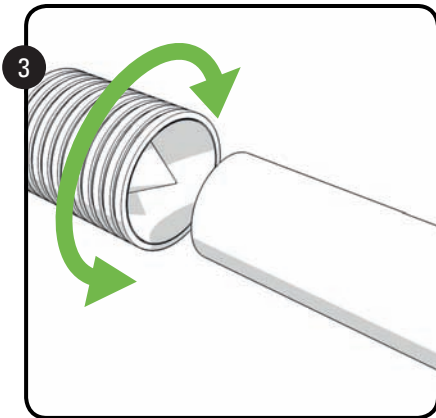
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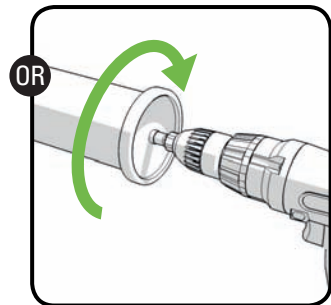
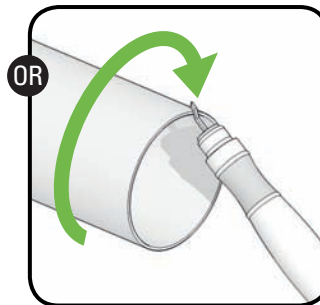


INSTALLATION

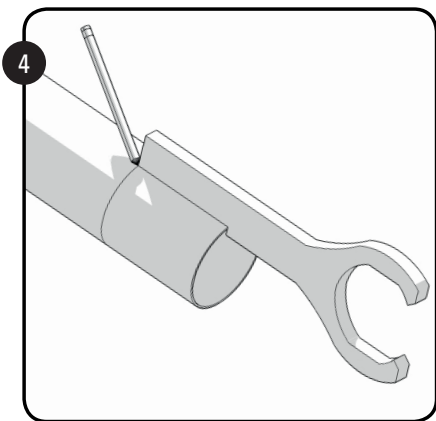
Diameters 40-50mm / 1 1/2" - 2"
(PF Series)



Ø 20-50 mm 2810 0141 00

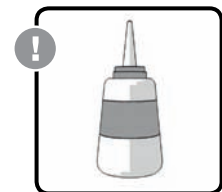
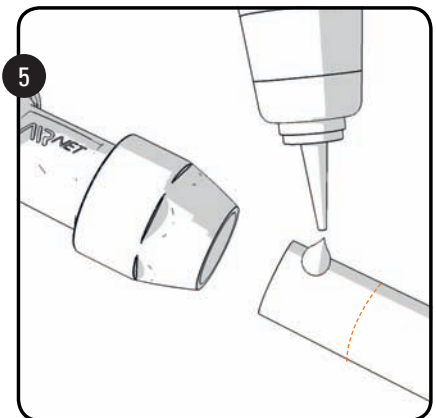


ALL 2810 0641 00



Ø 40 mm 2810 4028 00

Ø 50 mm 2810 5028 00



2810 0148 00

NEED TO KNOW

AIRNET PLANNER

INSTALLATION

SAFETY & SECURITY

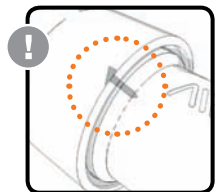
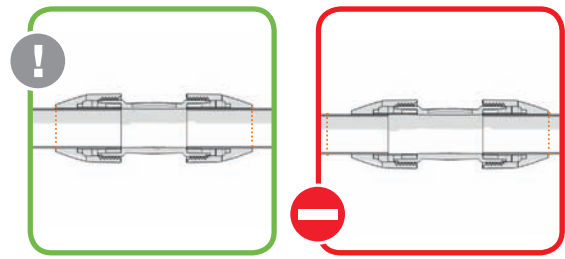
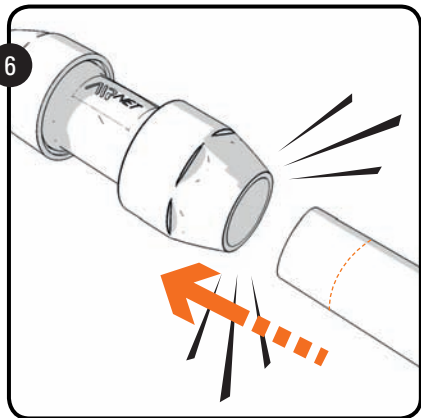
NEED TO KNOW

PRE-INSTALLATION

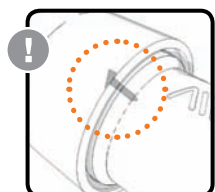
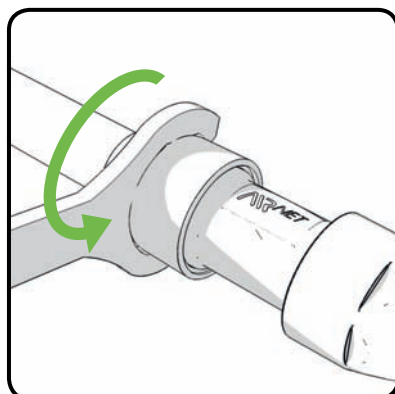
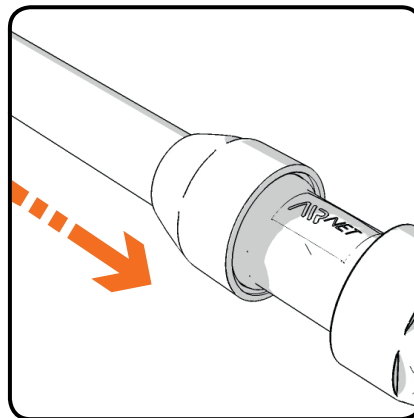
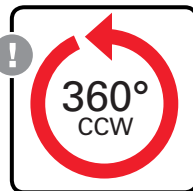
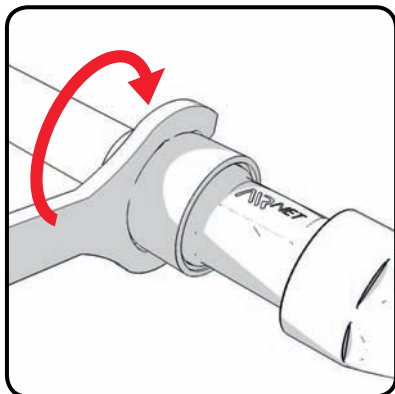
INSTALLATION

SAFETY & SECURITY

Diameters 40-50mm / 1 1/2" - 2" (PF Series)

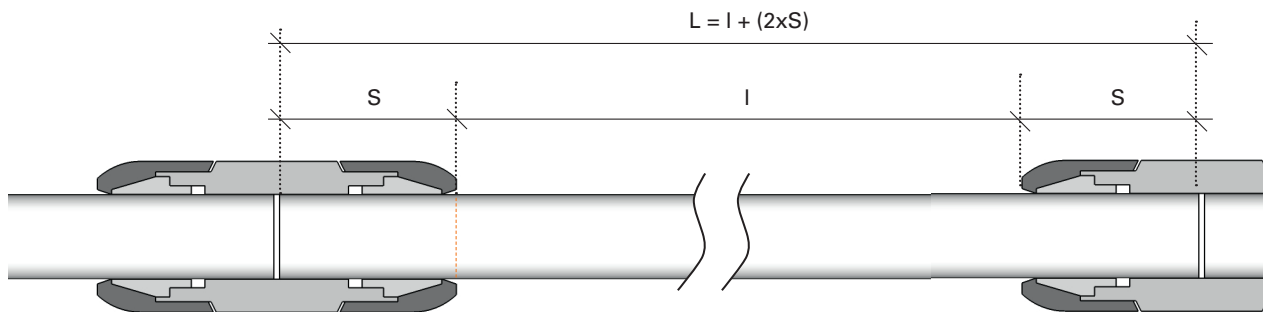
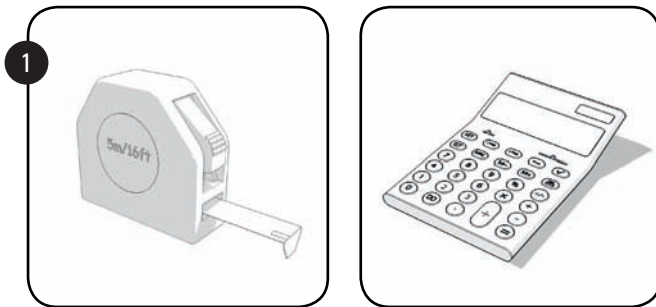


Installing with limited force available

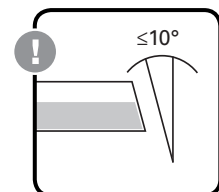
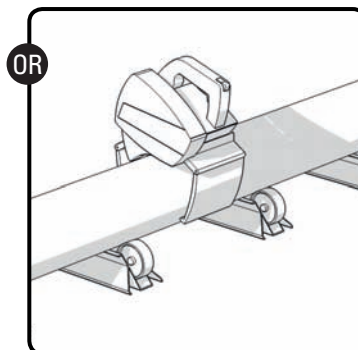
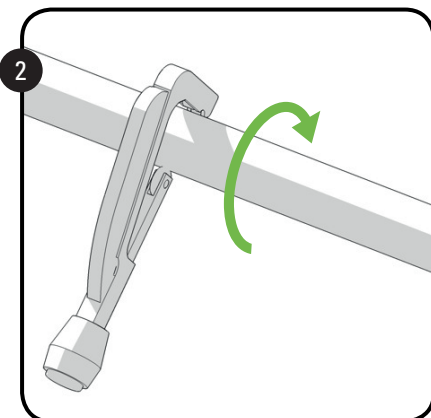


INSTALLATION

Diameters 20-25mm and 63 - 80mm
3/4" - 1" and 2 1/2" - 3"
(Classic)



Ø	S
20mm / 3/4"	49mm / 2"
25mm / 1"	62mm / 2 1/2"
63mm / 2 1/2"	90mm / 3 1/2"
80mm / 3"	115mm / 4 1/2"



- Ø 20-50 mm 2810 0040 00
- Ø 63-100 mm 2810 0140 00

- 110v 2810 0640 00
- 220v 2810 0540 00

NEED TO KNOW

PRE-INSTALLATION

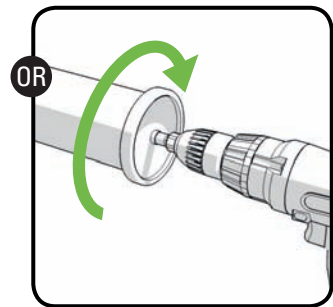
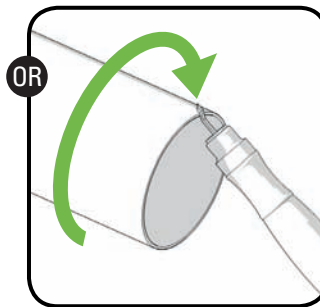
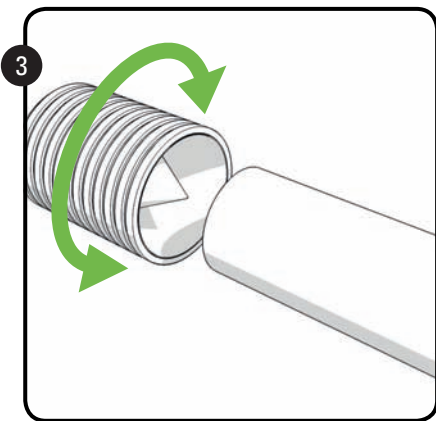
INSTALLATION

SAFETY & SECURITY

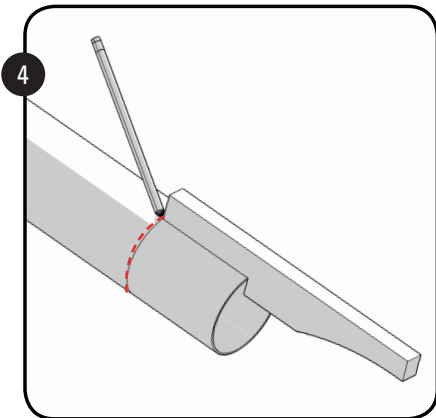
NEED TO KNOW

Diameters 20-25mm and 63 - 80mm
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PRE-INSTALLATION

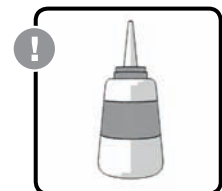
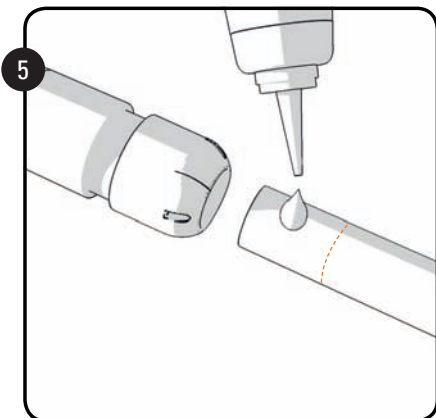


INSTALLATION



2810 0025 00

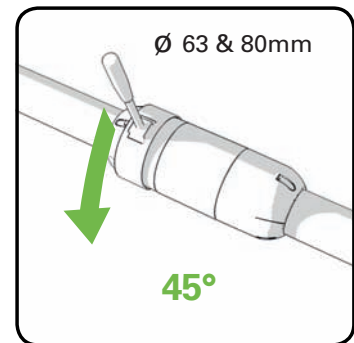
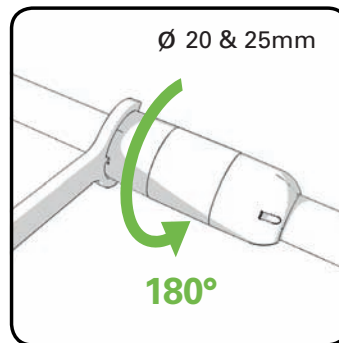
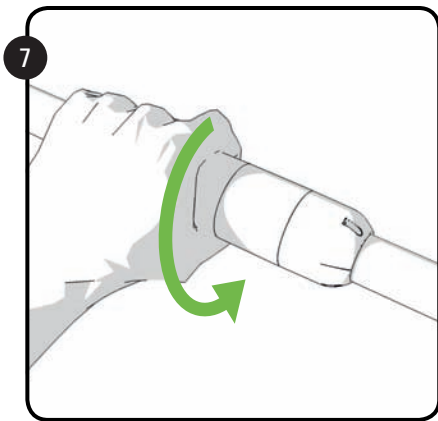
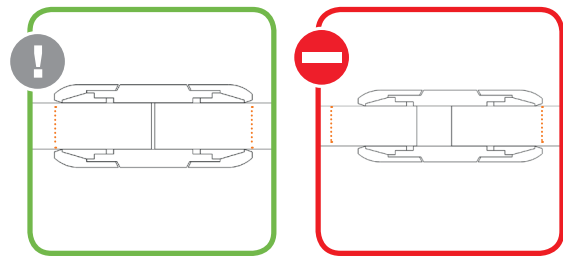
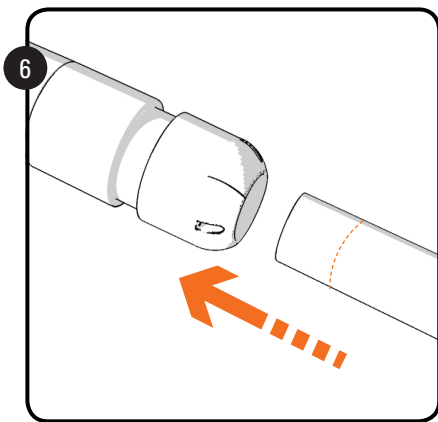
SAFETY & SECURITY



2810 0148 00

INSTALLATION

Diameters 20-25mm and 63 - 80mm
3/4" - 1" and 2 1/2" - 3"
(Classic)



NEED TO KNOW

PRE-INSTALLATION

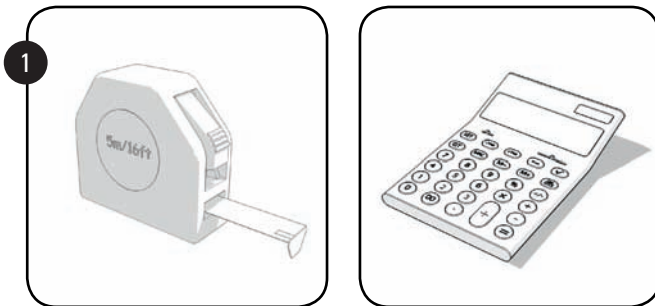
INSTALLATION

SAFETY & SECURITY

NEED TO KNOW

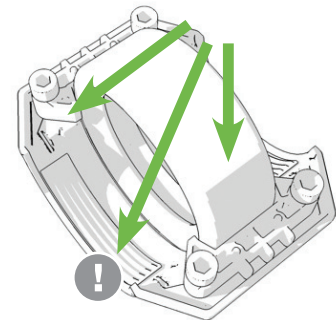
Diameter 100mm / 4"

PRE-INSTALLATION

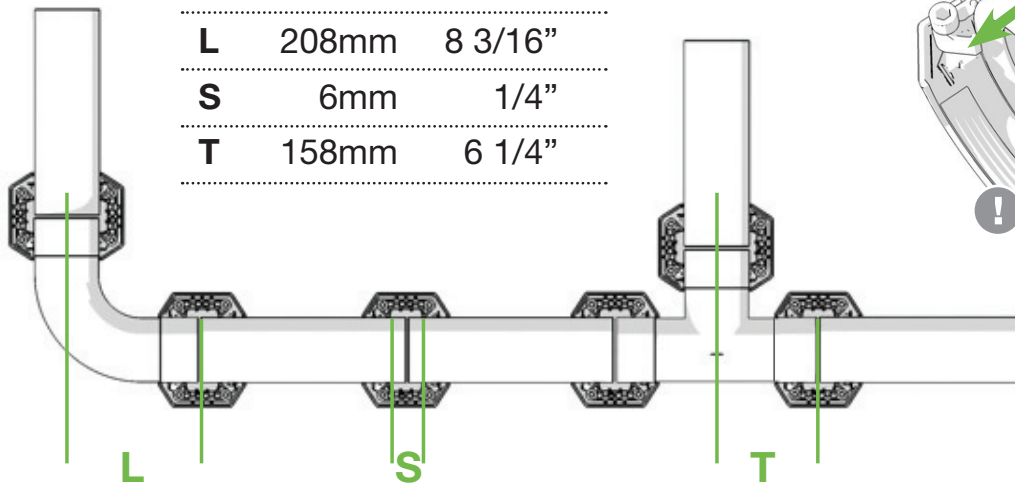


INSTALLATION

Ø	100mm	4"
L	208mm	8 3/16"
S	6mm	1/4"
T	158mm	6 1/4"

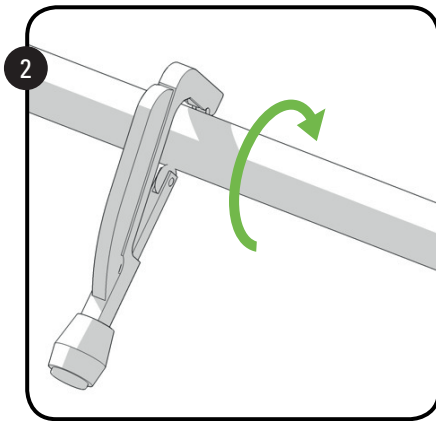


SAFETY & SECURITY

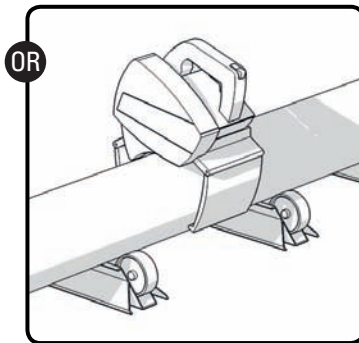


INSTALLATION

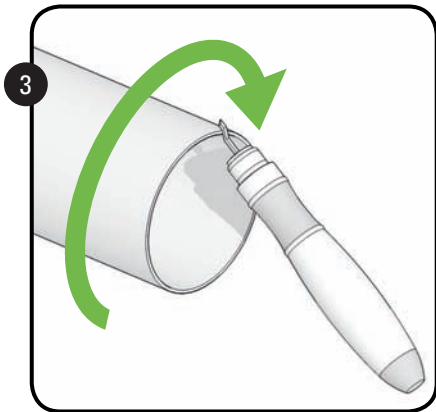
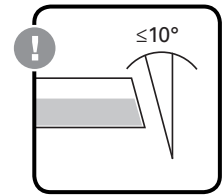
Diameter 100mm / 4"



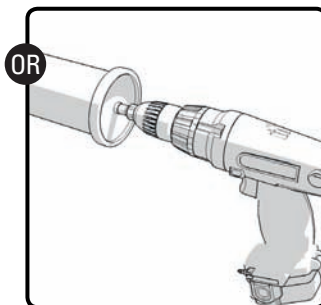
Ø 20-50 mm 2810 0040 00



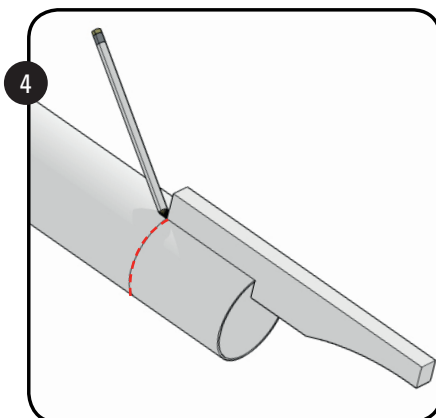
110v 2810 0640 00
220v 2810 0540 00



ALL 2810 0641 00



2810 0441 00



2810 0029 00

NEED TO KNOW

PRE-INSTALLATION

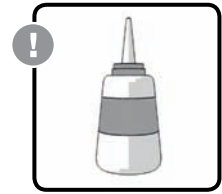
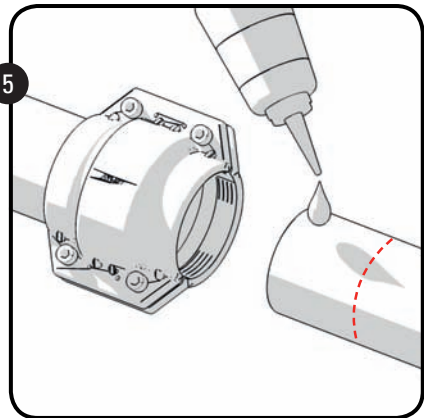
INSTALLATION

SAFETY & SECURITY

NEED TO KNOW

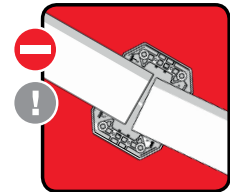
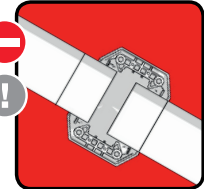
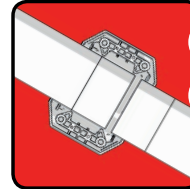
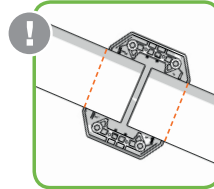
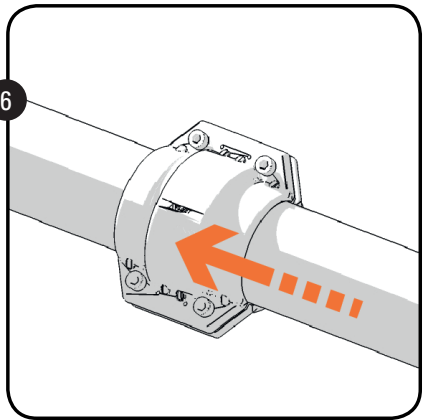
Diameter 100mm / 4"

PRE-INSTALLATION

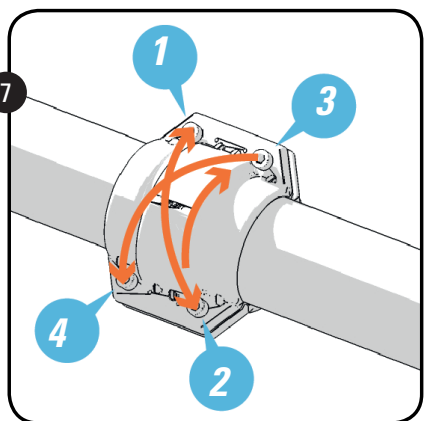


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INSTALLATION



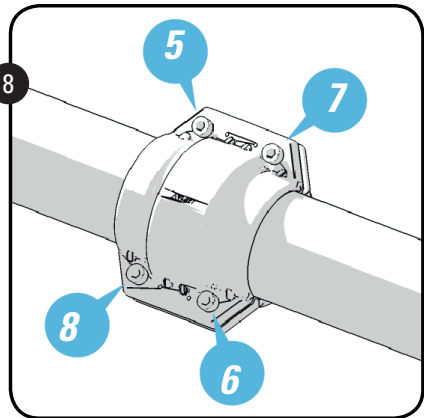
SAFETY & SECURITY



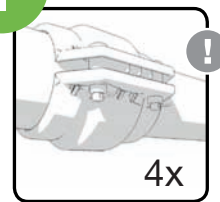
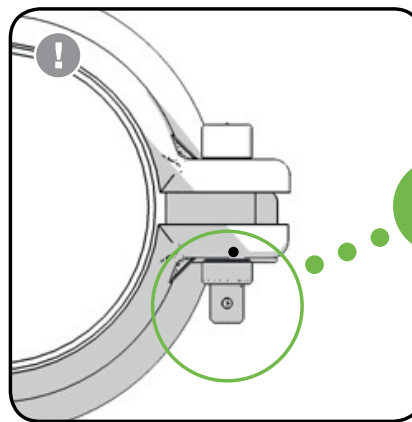
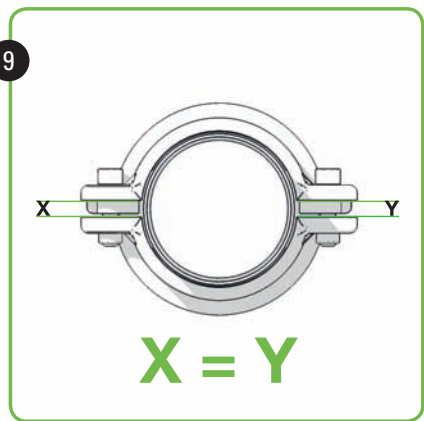
**0-5 Nm
0-3.7 lbs/ft**

INSTALLATION

Diameter 100mm / 4"



40Nm
29,5 lbs/ft



NEED TO KNOW

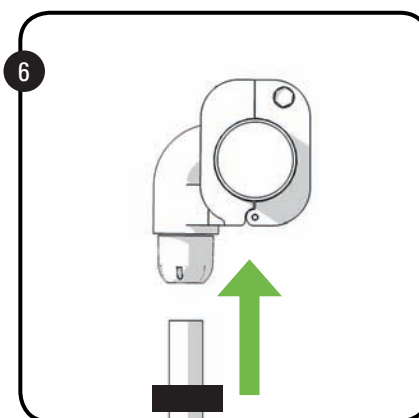
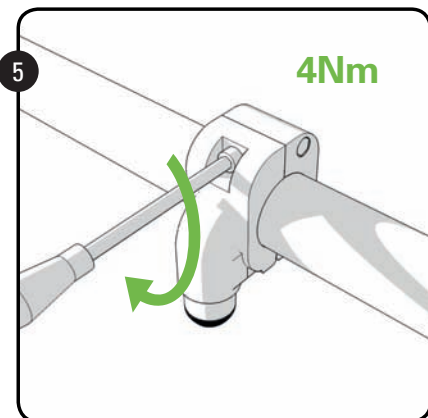
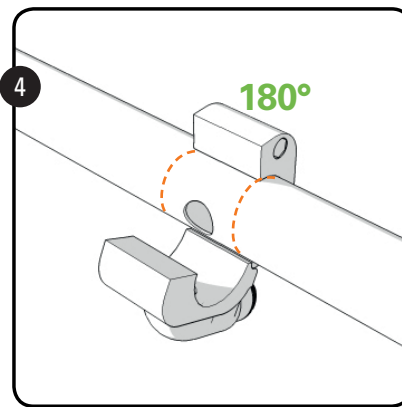
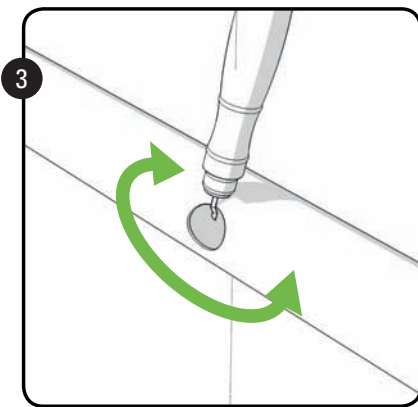
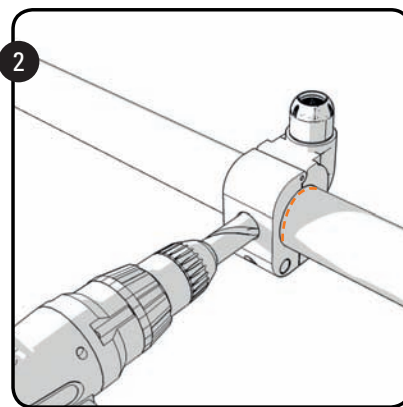
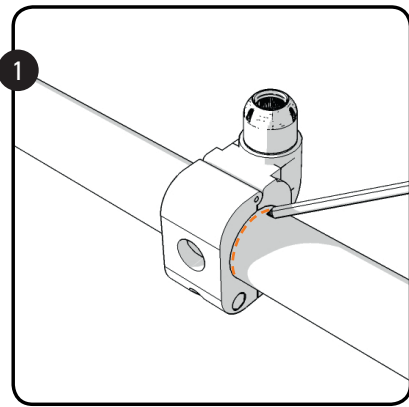
PRE-INSTALLATION

INSTALLATION

SAFETY & SECURITY

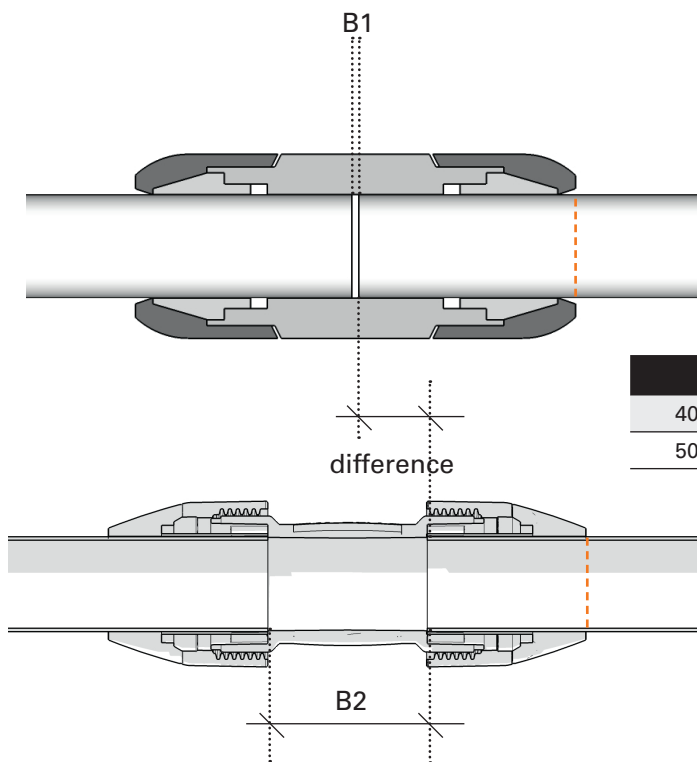
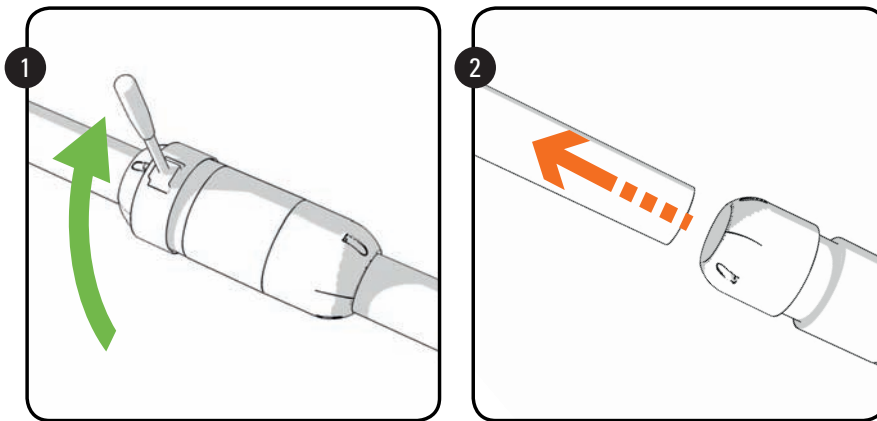
Quick Drop Assembly

Diameters 20 - 80mm / 3/4" - 3"



INSTALLATION

Replace Classic Series with new PF-Series



∅	B1	B2	Difference
40mm	4mm	80mm	38
50mm	5mm	80mm	37,5

NEED TO KNOW

PRE-INSTALLATION

INSTALLATION

SAFETY & SECURITY

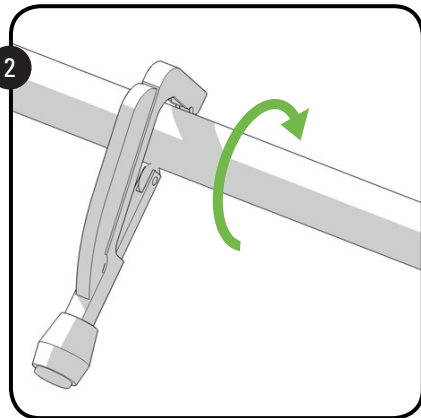
NEED TO KNOW

PRE-INSTALLATION

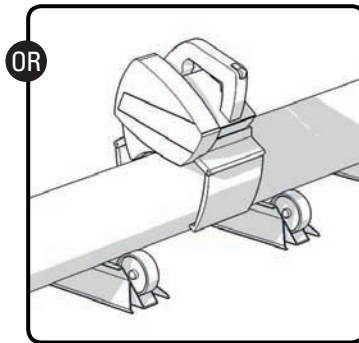
INSTALLATION

SAFETY & SECURITY

Replace Classic Series with new PF-Series

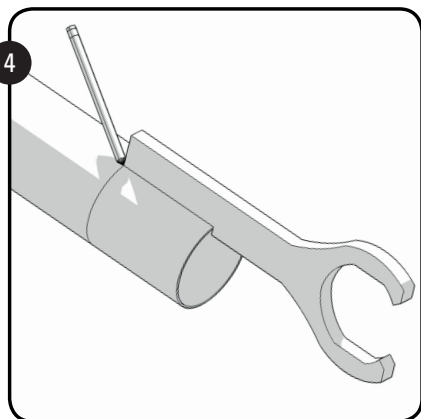
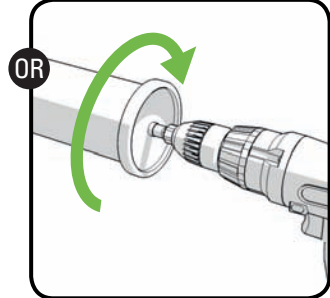
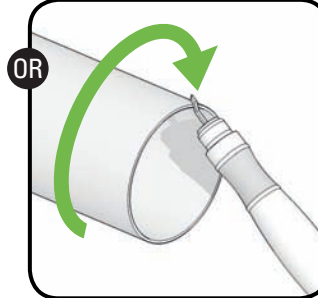
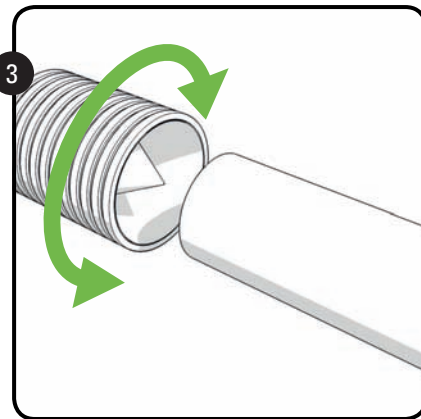
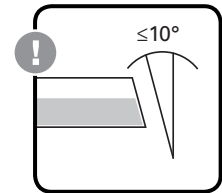


Ø 20-50 mm 2810 0040 00



110v 2810 0640 00

220v 2810 0540 00

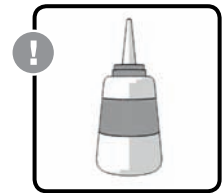
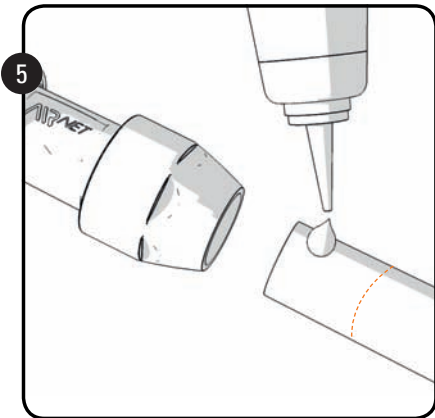


Ø 40 mm 2810 4028 00

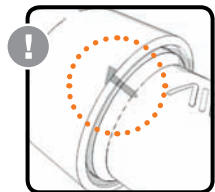
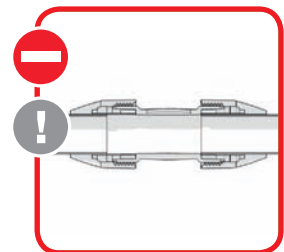
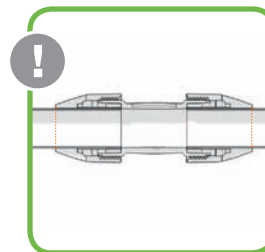
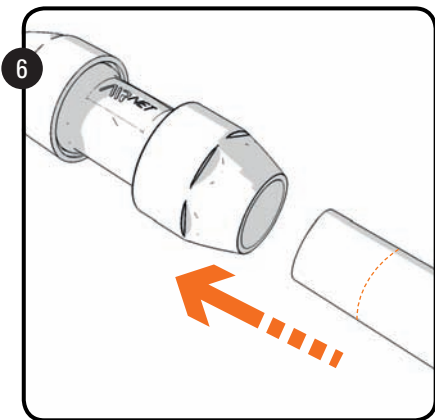
Ø 50 mm 2810 5028 00

INSTALLATION

Replace Classic Series with new PF-Series



2810 0148 00



NEED TO KNOW

PRE-INSTALLATION

INSTALLATION

SAFETY & SECURITY

NEED TO KNOW

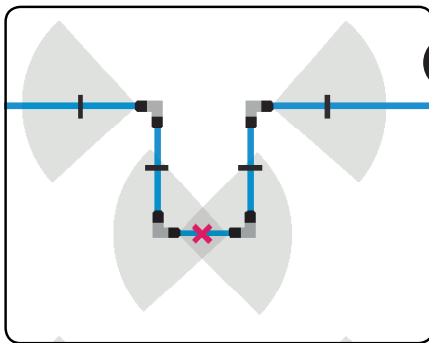
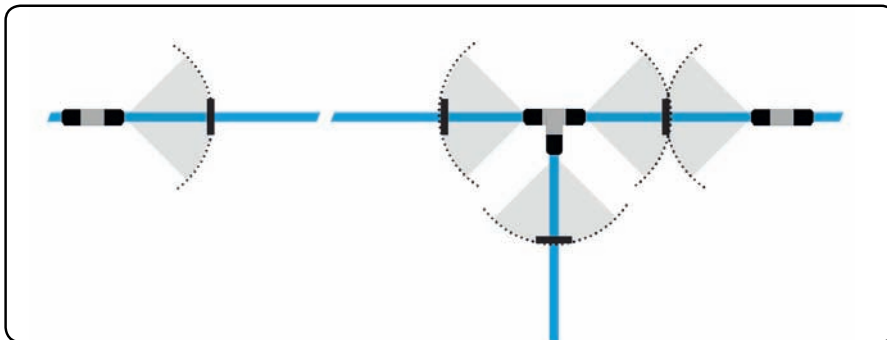
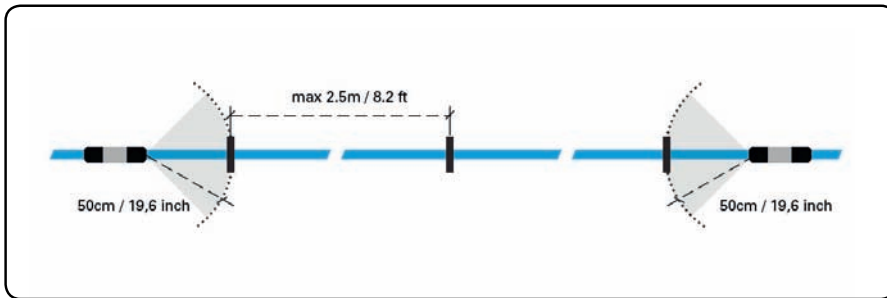
PRE-INSTALLATION

INSTALLATION

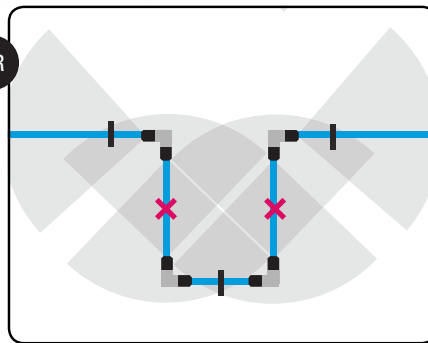
SAFETY & SECURITY

Pipe Clips Installation

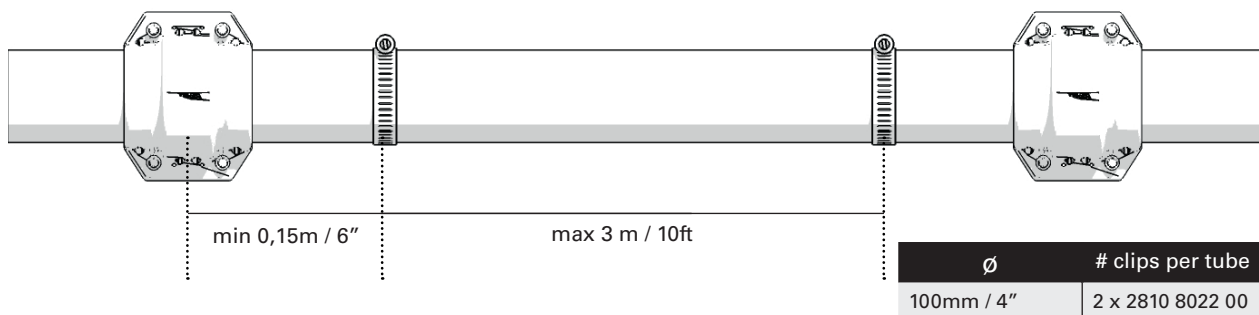
Diameters 20 - 80mm / 3/4" - 3"



OR

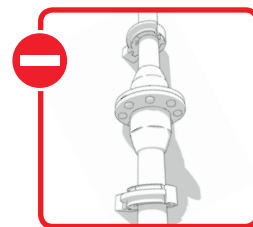
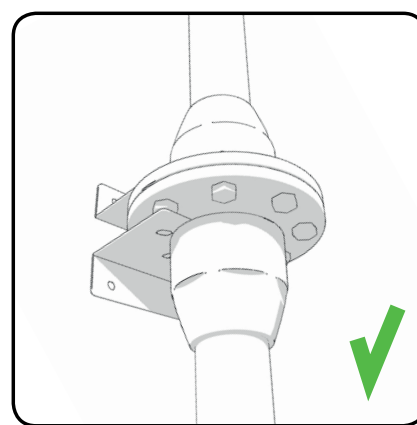
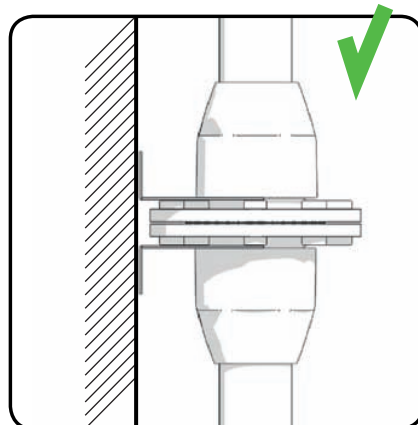
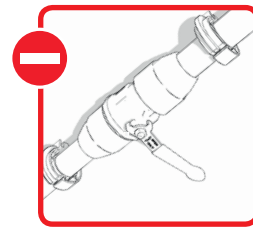
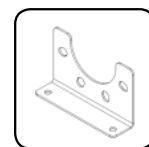
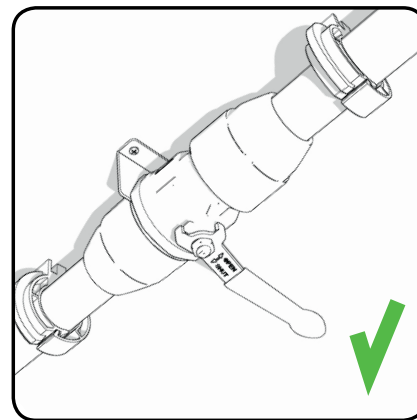
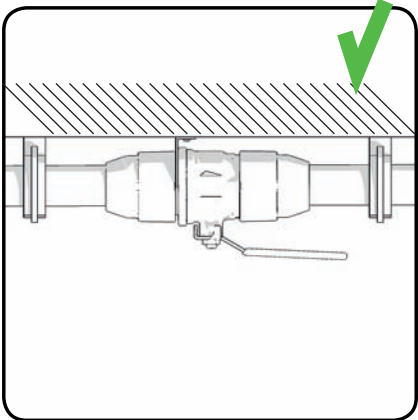
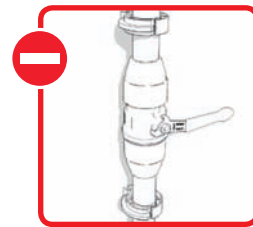
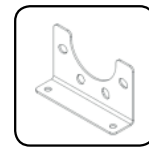
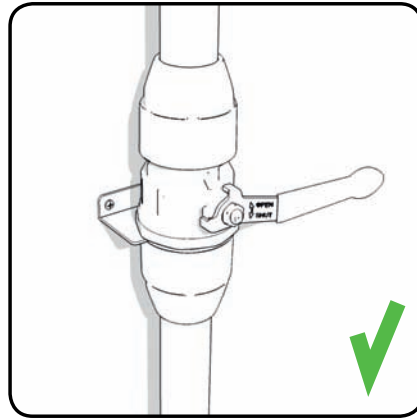
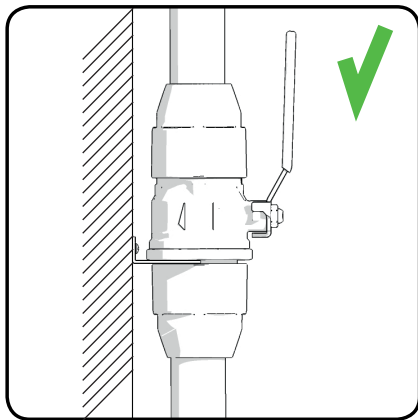


Diameter 100mm / 4"



INSTALLATION

Valve Support



NEED TO KNOW

PRE-INSTALLATION

INSTALLATION

SAFETY & SECURITY

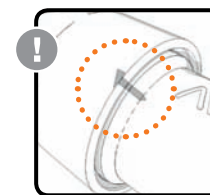
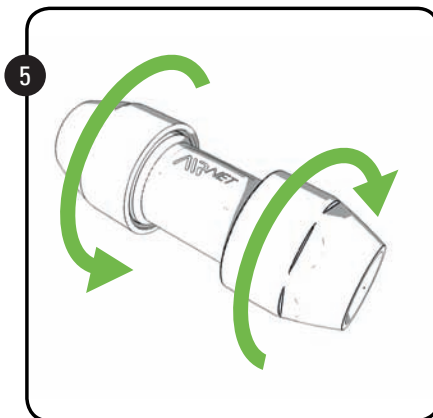
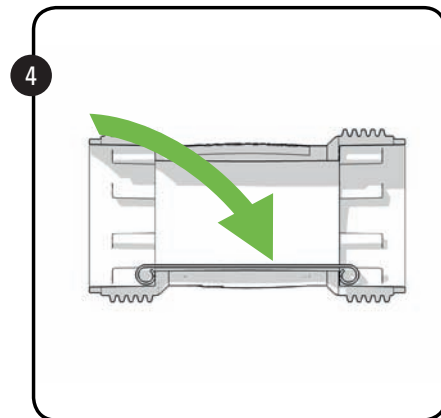
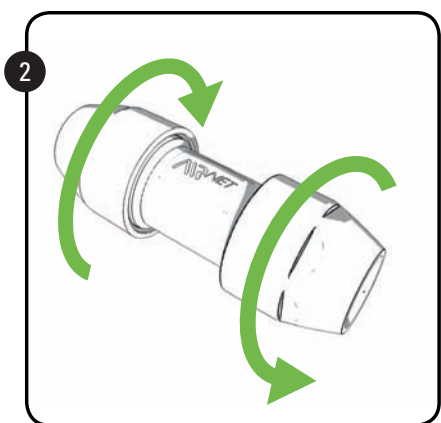
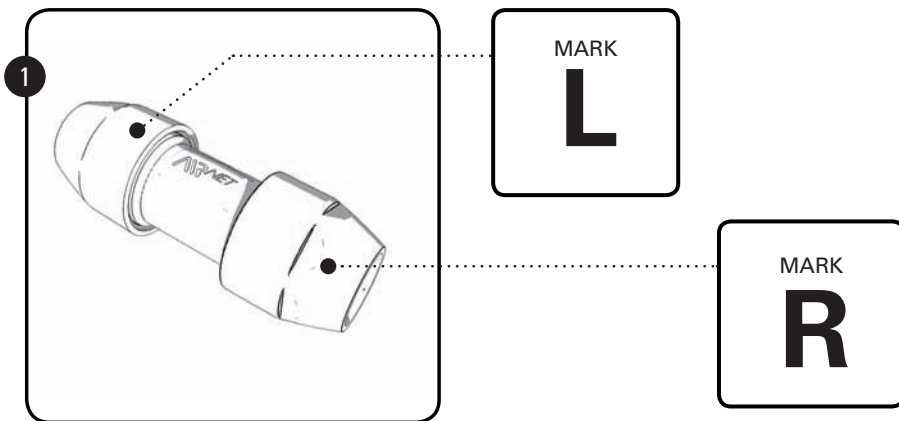
NEED TO KNOW

PRE-INSTALLATION

INSTALLATION

SAFETY & SECURITY

Conductivity Strip (PF Series only)



SAFETY & SECURITY

Operating Conditions & Safety Instructions

- AIRnet has been designed to convey compressed air.
- The installer must employ safe working practices and observe all related local work safety requirements and regulations.
- Installation, operation, maintenance and repair work must be performed by authorised, trained, specialised personnel.
- Before any installation, maintenance, repair work, adjustment or any other non-routine checks, relieve the system of pressure and effectively isolate the system from all sources of pressure.
- Never use the components below or in excess of its limit ratings.
- 13bar(e) safety valve should be present in installations for applications >13bar(e).
- AIRnet pipes and fittings are not suitable for embedded or buried installations.
- Do not use the AIRnet system as support for electrical equipment or earth conductor
- Use the correct tools
- Use only genuine parts
- The fittings are sensitive to direct UV radiation, in case of direct exposure, shield the fittings. The AIRnet pipes offer excellent resistance to UV radiation.
- Never weld or bend the pipes.
- AIRnet piping must be appropriately protected against violent impacts.
- Any plugs or caps must be removed before installing the pipes.
- Never use solvents or chemicals which can damage materials of the AIRnet.
- Check the surface of the AIRnet pipe (no relevant scratches, abrasions, dents,...) before installing
- Never connect AIRnet pipes directly to a source of vibrations, use hoses instead.
- Before using a system, an installer must ensure that all necessary test controls and applicable rules for compressed air installations are complied.
- At initial start up, apply a test pressure of 1.5 bar to the system to identify leakage or imperfect joints. After performing the inspection, increase the pressure gradually and constantly (max. 1 bar every 30 seconds).
- AIRnet is suitable for use with compressed air (lubricated, oil free, dry and wet), vacuum (20-80mm only, 0.13bar) and nitrogen gas. *

*Always consult local regulations for above use

NEED TO KNOW

PRE-INSTALLATION

INSTALLATION

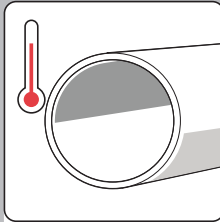
SAFETY & SECURITY

NEED TO KNOW

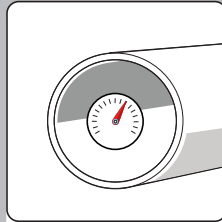
PRE-INSTALLATION

INSTALLATION

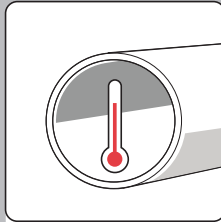
SAFETY & SECURITY



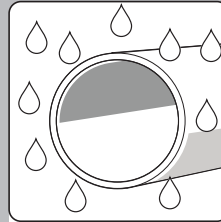
-20°C ↔ +50°C
-4°F ↔ +122°F



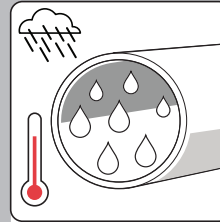
4 bar ↔ 13 bar
60psi ↔ 188 psi



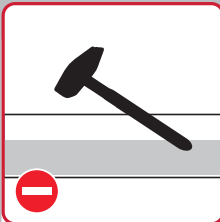
-20°C ↔ +70°C
-4°F ↔ +158°F



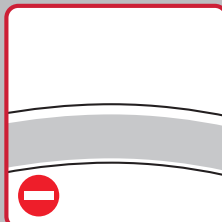
Rh 100%



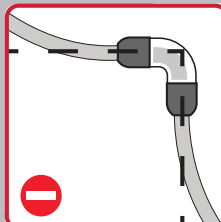
-70°C
-94°F



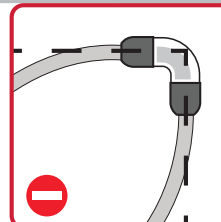
DO NOT STRIKE



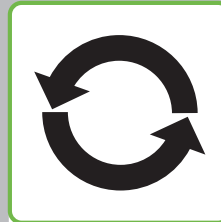
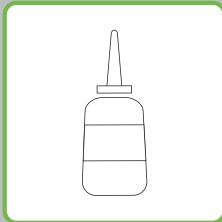
DO NOT BEND



RESPECT GEOMETRY OF FITTINGS



COMPATIBLE WITH
LUBRICANTS



REUSEABLE

fast

Thanks to a smart design and low weight materials, AIRnet can be installed 70% faster than conventional systems.

easy

AIRnet pipes and fittings are assembled in just a few steps by a single installer, without the need for heavy machinery.

reliable

The durable, corrosion-free AIRnet pipes and fittings come with a 10-year warranty. Low friction and seamless connections minimize pressure drop.



97/23/EC
ASME B31.1
EN755
Qualicoat
Test in accordance with EN 10204
TUV Certification DR97/23/EG art. 3.3

Your Dealer