prevost

CONNECTED TO INNOVATION

COMPRESSED AIR NETWORK
LA RED DE AIRE COMPRIMIDO

PREVOST PIPING SYSTEM

EN **ASSEMBLY INSTRUCTIONS**

ES **INSTRUCCIONES DE MONTAJE**

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PPS

PPS SQ

PREVOST PIPING SYSTEM - PPS

■ INSTALLATION TOOLS REQUIRED
■ HERRAMIENTAS NECESARIAS PARA LA INSTALACIÓN

PPS CH / PPS CHPD
Pipe chamfering tool /
Herramienta de biselado para tubos

PPS CHERAP
Deburring tool /
Herramienta para besbarbar

PPS1 CLE
Tightening wrench /
Llave de apriete

PPS1 CLESTD
Hook spanner /
Llave de pico de loro ajustable

PPS CTU
Pipe cutter /
Cortatubos

PPS AL
Assembly gel /
Gel lubricante para operaciones de ensamblaje

PPS SP
Tapping flange drill bit /
Broca de perforación

PPS INS
Insertion tool guide for PPS pipe and fittings /
Herramienta de asistencia para la inserción tubo/racor

TTW
Torque wrenches /
Llaves dinamométricas

Hex socket /
Casquillo hexagonal

Drill /
Taladro

Marker /
Marcador

Tape measure /
Metro

Gloves /
Guantes de protección

Protective goggles /
Gafas de protección

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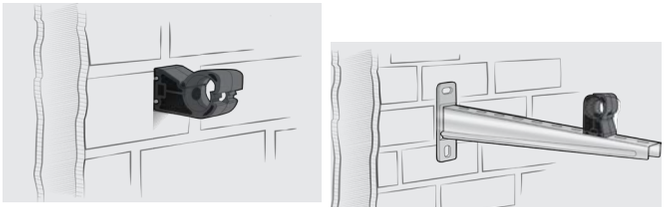
CONTENTS

PRIOR TO INSTALLATION

Ideally, the **compressor room should be spacious, well ventilated, insulated and separate from the rest of the workshop**.

To eliminate vibration issues and easy maintenance access, connect any machinery to the ***PPS*** network with flexible hoses (part numbers LAM and LEM). It is important to **install bypasses between each machine**, the tank(s) and filters.

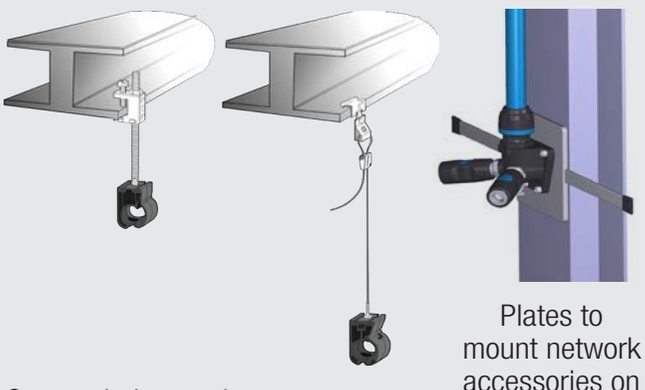
MOUNT THE NETWORK SYSTEM



Wall mounting

The main network should form a loop mounted at a minimum of 2.5 m (8 ft.) above The ground for safety. Install drains with **an automatic trap** at the bottom of each drop to remove residual condensates.

The diameter of the main line must be sufficient to avoid pressure loss and allow for future expansion. Mount the pipe with **an appropriate number of sliding clamps** to securely hold it in place but still allow for expansion and contraction to occur. (PPS CI clamps). We recommend a slope of 1% to direct condensates to low points (drains).



Suspended mounting

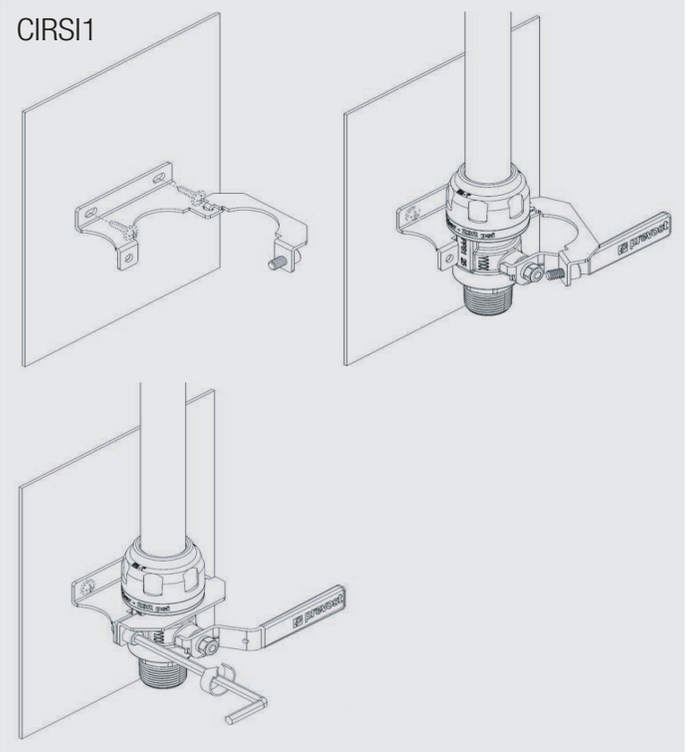
Plates to mount network accessories on IPN/HEA beams

To guarantee the system is aligned and solidly attached, select an appropriate mounting option depending on the configuration of the building. For safety purposes, we recommended mounting clamps no more than 3 m (9 ft.) apart.
Determine the spacing between two clamps by the pipe's diameter, environmental temperature and weight of the conveyed fluid. The recommended spacing guidelines are below.

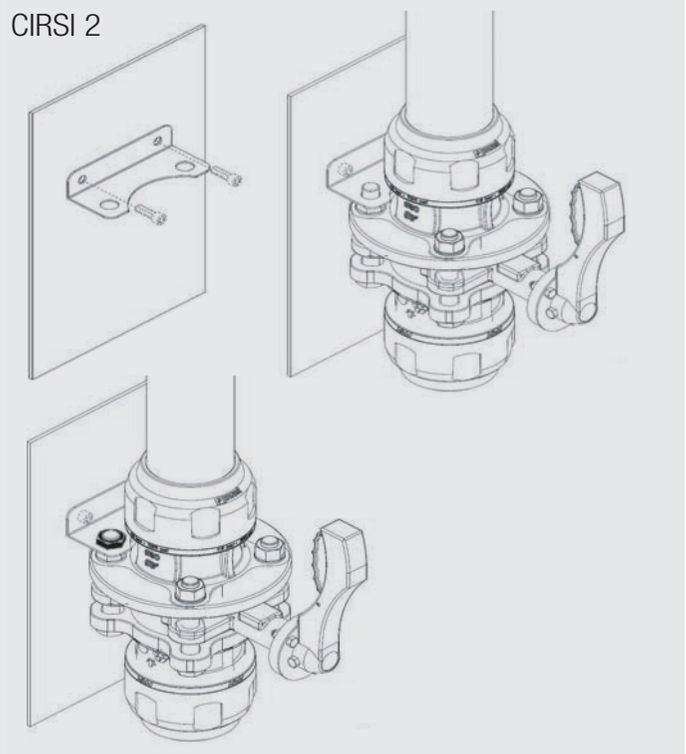
∅	Spacing expressed in meter or inches depending on the temperature		
mm	**<20°C**	**30°C**	**40°C**
Ø 16	2 m	2 m	1,5 m
Ø 20	2,5 m	2 m	1,5 m
Ø 25	3 m	2,5 m	2 m
Ø 32	3,5 m	3 m	2,5 m
Ø 40	4 m	3,5 m	3 m
Ø 50	3,5 m	3 m	2,5 m
Ø 63	3,5 m	3 m	2,5 m
Ø 80	3,5 m	3 m	2,5 m
Ø 100	3,5 m	3 m	2,5 m
Ø 160	3,5 m	3 m	2,5 m
in	**<68°F**	**86°F**	**104°F**
1/2"	65 ft	65 ft	5 ft
3/4"	8 ft	65 ft	5 ft
1"	10 ft	8 ft	65 ft
1 1/4"	11 ft	10 ft	8 ft
1 1/2"	13 ft	11 ft	10 ft
2"	11 ft	10 ft	8 ft
2 1/2 "	11 ft	10 ft	8 ft
3 "	11 ft	10 ft	8 ft
4"	11 ft	10 ft	8 ft
6"	11 ft	10 ft	8 ft

Do not attach fittings or other accessories that will block the clamps from sliding.

CIRSI1



CIRSI 2



ATTACH SYSTEM ACCESSORIES TO IPN/HEA BEAMS

To create **an organized and safe** work environment many of our products attach to metal plates, which fasten to IPN/HEA beams. The plates **quickly install without drilling or welding** and are **compliant with industry standards**.

Plates are available for the following products:

- Open and closed hose reels
- Wall brackets
- ***Prevost filtration*** air treatment systems
- Universal supports + accessories

MATERIAL EXPANSION

Like many other pipe options, aluminum expands and contracts depending on temperature fluctuations. Various components can accommodate this movement.
For small pipe diameters, use a flexible hose to change direction (angles/corners) or bypass obstacles (pillars, beams etc.). For larger diameters, expansion (dilation) kits work best.
Expansion coefficient: 0.024 mm per meter and per °C or 13.7 x 10^{-6} inch per inch per °F.

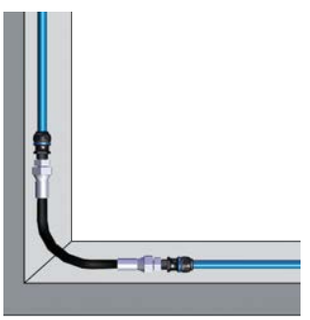
Calculate Expansion:

C = Expansion coefficient
L = Length of the straight stretch (between two fixed points)
ΔT° = Difference between the maximum and minimum ambient temperatures in °F
DL = Overall expansion
ex. DL = C x L x ΔT°

Example: a 20-meter line using 40 mm tubing, at an ambient temperature of 15°C with a maximum temperature of 40°C, i.e. a difference of 25°C.
DL: 0.024 × 20 (m) × 25°C (40°C – 15°C) = 12 mm

Example: 60 feet (720 inches) line using 1 1/2» piping, at an ambient temperature of 60°F with a maximum temperature of 100°F, i.e. a difference of 40°F.

DL: 13.7 × 10^{-6} x 720 (in) × 40°F = **0.39 in**



Flexible

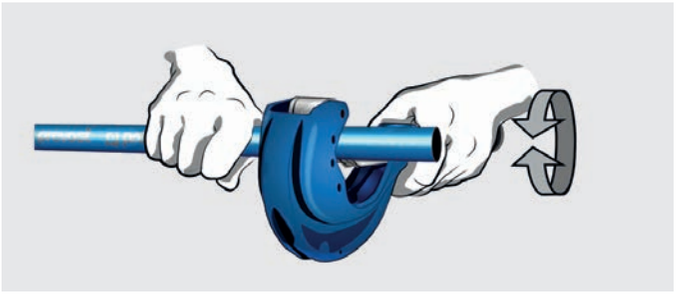
Expansion kit

B - ASSEMBLY INSTRUCTIONS

1 - CUT THE PIPE

WARNING: The cut must be straight and perpendicular to the axis of the pipe.

Note: Inspect the surface at the end of the pipe for damage. Avoid scratches and impacts to guarantee proper assembly.

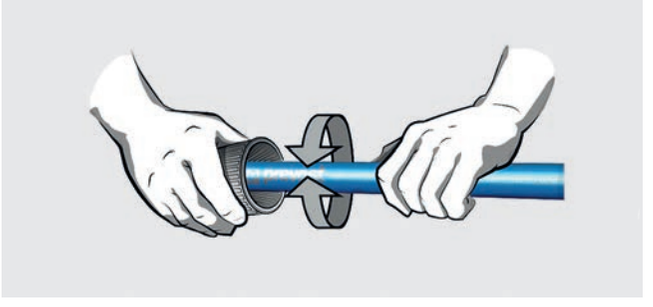


Ø (mm)	Ø (in)	Pipe cut
Ø 16 to 63	**Ø 1/2" to 2 ½"**	PPS CTU63
Ø 63 to 100	**Ø 2 1/2" to 4"**	PPS CTU110
Ø 160	**Ø 6"**	PPS CTU160

2 - CHAMFERING - DEBURRING

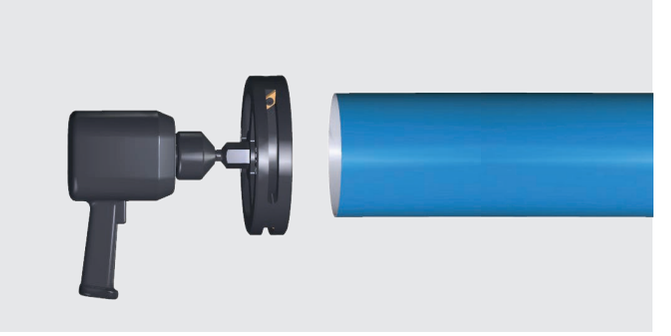
■ MANUAL

After cutting, deburr the inside of the pipe with the ***PPS CHERAP*** tool and outside with the correct size ***PPS CH***. Remove any excess shavings inside the pipe and check for a good, quality chamfered edge.



Ø (mm)	Ø (in)	Bevelling/ deburring tools
Ø 16 to 50	**Ø 1/2" to 2 1/2"**	PPS CH50
Ø 63 to 100	**Ø 2 1/2" to 4"**	PPS CH110

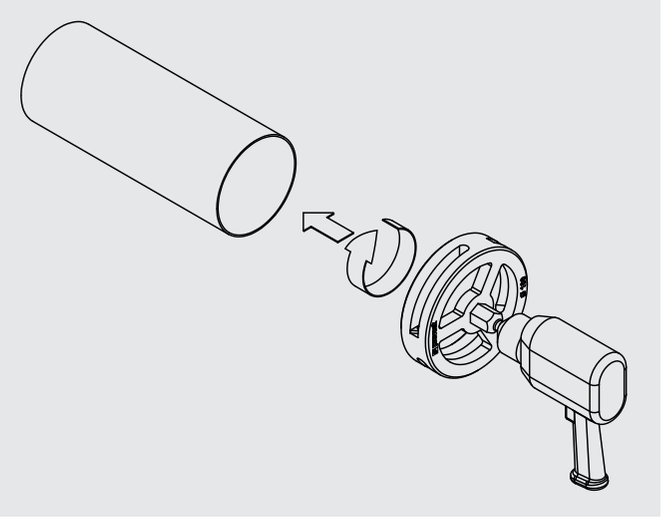
■ MECHANICAL CHAMFERING



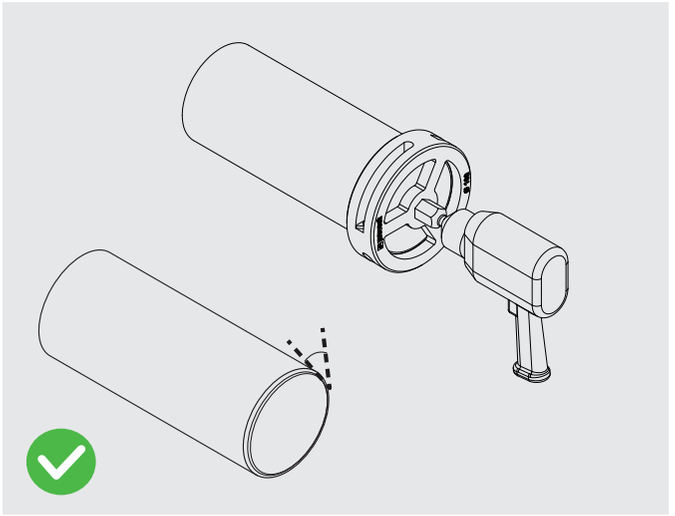
Ø (mm)	Ø (in)	Bevelling/ deburring tools
Ø 16 to 20	**Ø 3/4" to 1/2"**	PPS CHPD2016
Ø 25	**Ø 1"**	PPS CHPD25
Ø 32	**Ø 1 1/4"**	PPS CHPD32
Ø 40	**Ø 1 1/2"**	PPS CHPD40
Ø 50	**Ø 2"**	PPS CHPD50
Ø 63	**Ø 2 1/2"**	PPS CHPD63
Ø 80	**Ø 3"**	PPS CHPD80
Ø 100	**Ø 4"**	PPS CHPD100
Ø 160	**Ø 6"**	PPS CHPD160

WARNING: Wear protective glasses and gloves

Note: To avoid damage to the internal seal of the fitting, this step must be followed. Check the rotation direction of the drill prior to working on the pipe.

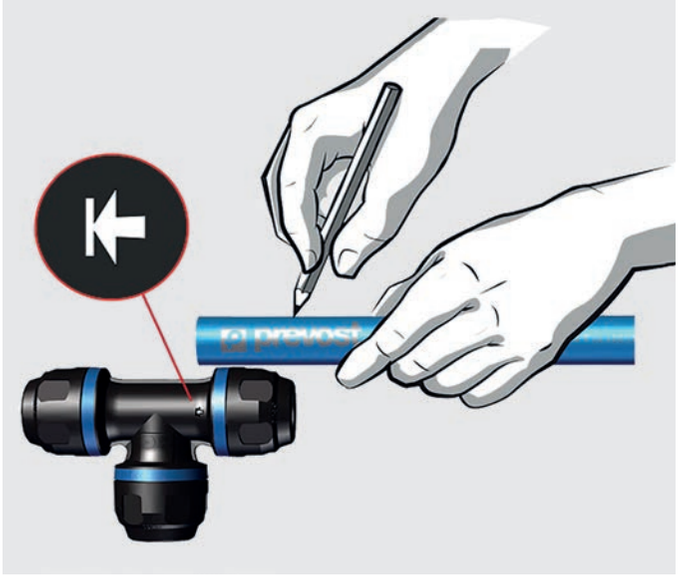


Do not exert excessive pressure on the pipe.



3 - MARK THE PIPE

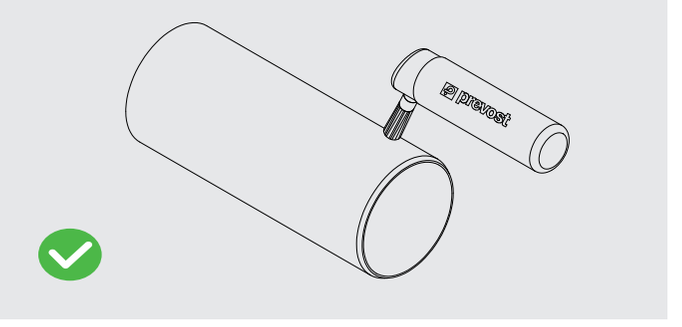
Mark the pipe to determine the insertion depth of the pipe in the fitting (see table). Use the mark on the fitting (or on the ***PPS1 CLE*** tightening wrench) to easily determine the insertion depth.



Ø (mm)	Depth (mm)	Ø (in)	Depth (in)
Ø 16	32	**1/2 "**	1.25
Ø 20	38	**Ø 3/4 "**	1.5
Ø 25	44	**Ø 1 "**	1.73
Ø 32	52	**Ø 1 1/4 "**	2
Ø 40	62	**Ø 1 1/2 "**	2.44
Ø 50	72	**Ø 2 "**	2.8
Ø 63	83	**Ø 2 1/2 "**	3.25
Ø 80	95	**Ø 3 "**	3.7
Ø 100	95	**Ø 4 "**	3.7
Ø 160	120	**Ø 6 "**	4.7

4 - LUBRICATING THE PIPE

After cutting, check the surface and remove any remaining shavings with a damp cloth and non-aggressive cleaning solution. We recommend using PPS AL gel to lubricate the pipe so it slides easily into the fittings without resistance. (Lubricants, oils or fats that are not chemically compatible should not be used.)

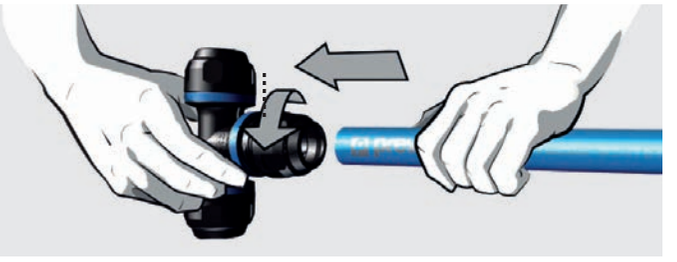


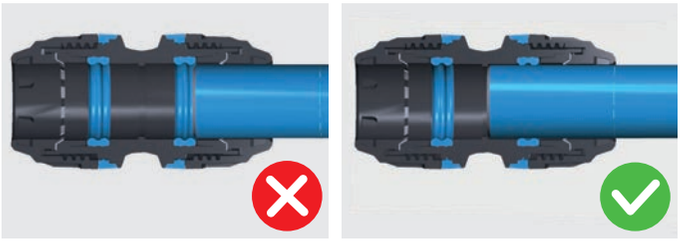
5 - ASSEMBLING FITTINGS ON THE PIPE

5.1 PIPE/CONNECTOR INSERTION TOOL

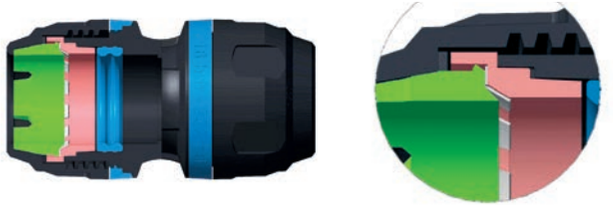
5.1.a Manual Insertion Ø 1/2 - 3”

2. Loosen the nut by at least one turn but without disassembling it.



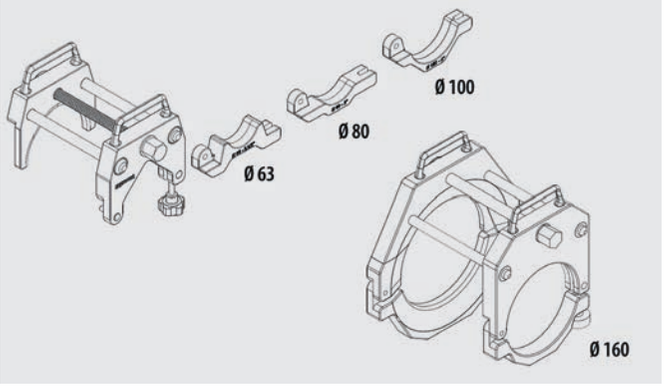


3. Check the presence and positioning of all components in the fitting.
Check the orientation of the grip ring's teeth without disassembling the fitting (see diagram).



4. Push the pipe in with a slight rotation to reach the insertion length. It is recommended to apply the Prevost assembly gel **(PPS AL)** on the ends of the tubes and fittings. Lubricants, oils or fats that are not chemically compatible should not be used.

5.1.b Mechanical Insertion (PPS INS TOOL): Ø 2 1/2 - 6"

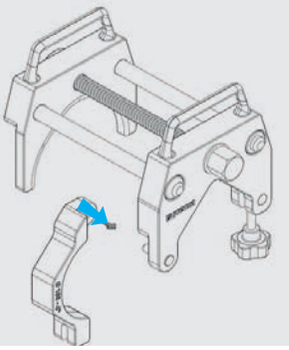


Ø PPS pipe (mm)	Ø PPS pipe (in)	Part number
Ø 63 - Ø 80 - Ø 100	**Ø 2 1/2" - Ø 3" - Ø 4"**	PPS INS63100
Ø 160	**Ø 6"**	PPS1 INS160

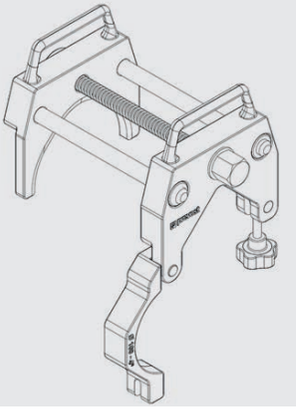
Warning: The pipe must be deburred before using this tool. Failure to do so may damage the seal.

Align the tool on the pipe and fitting

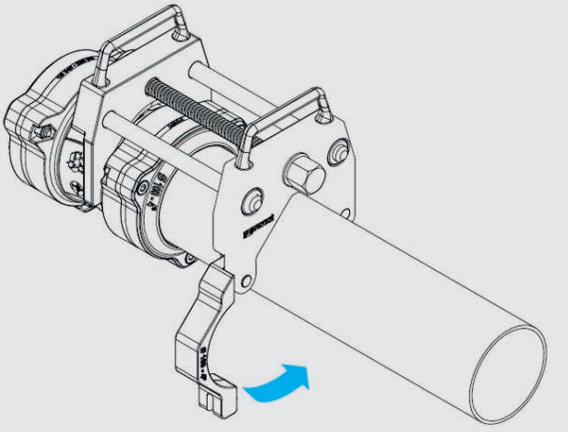
1



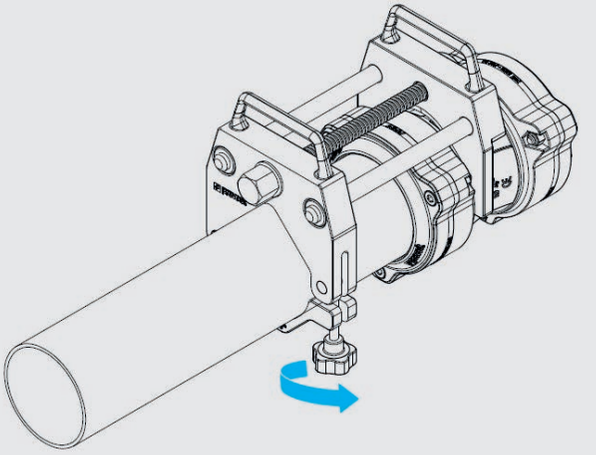
2



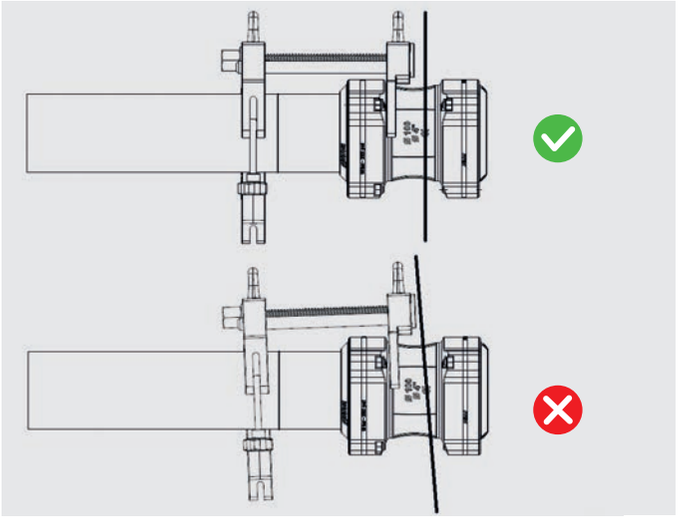
3

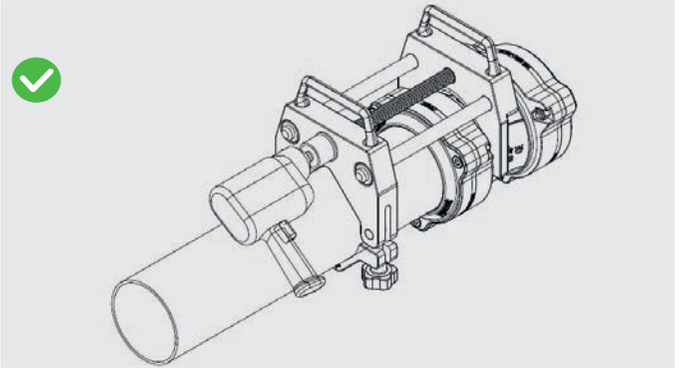


4



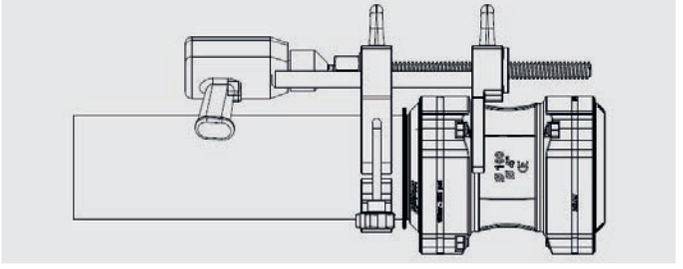
WARNING: Check for proper alignment of the pipe and the fitting to avoid leaks prior to tightening the nut.

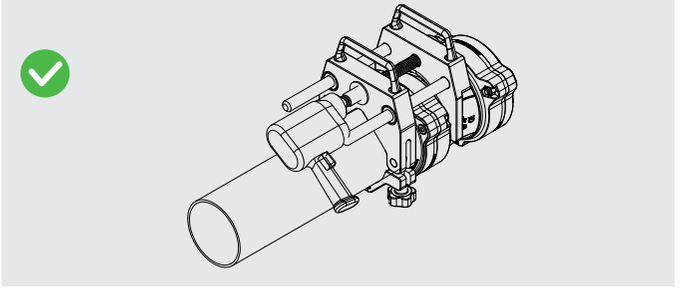




For a secure fit, all parts of the fitting must be aligned on the pipe.

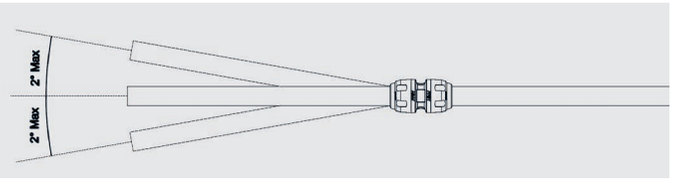
Don't use the insert pipe tool with pre-assembled CC or FL fittings (ex: PPS1 DK , PPS1 RSI)



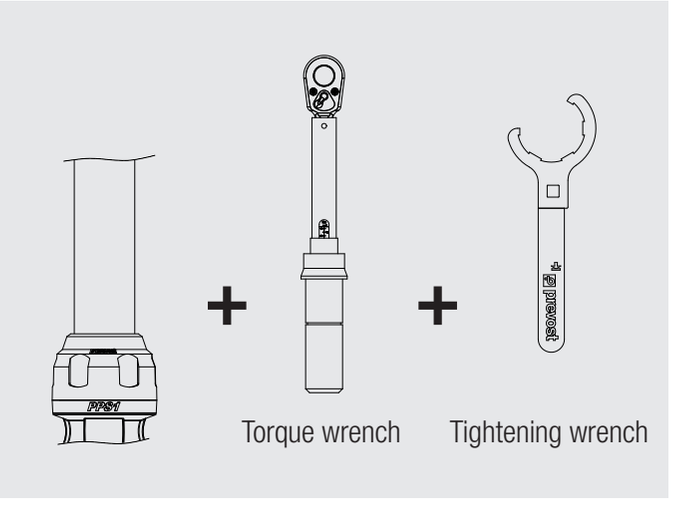


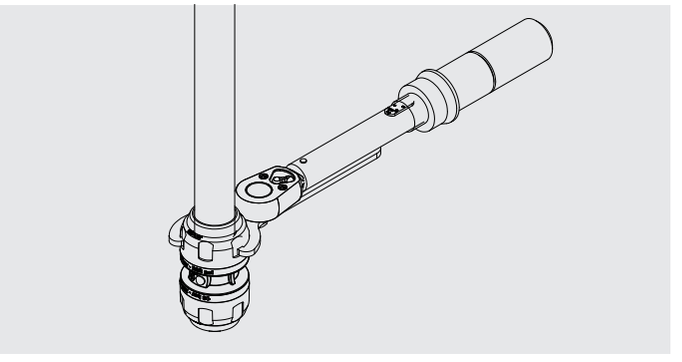
5.2 TIGHTENING

WARNING: When tightening the nuts, hold the fitting in position.



Nuts from Ø 1/2" to Ø 3"





WARNING: Tighten each nut to the recommended torque value.

Use the ***PPS1 CLESTD*** (neutral hook spanner) to hold the body of the fitting in position while using the ***PPS1 CLE*** wrench to tighten the nuts.

Ø (mm)	Tightening torque (Nm)	
	Min	Max
Ø 16	8	12
Ø 20	15	25
Ø 25	21	35
Ø 32	32	50
Ø 40	32	50
Ø 50	55	85
Ø 63	65	95
Ø 80	70	100
Ø 100	25	28
Ø 160	25	28

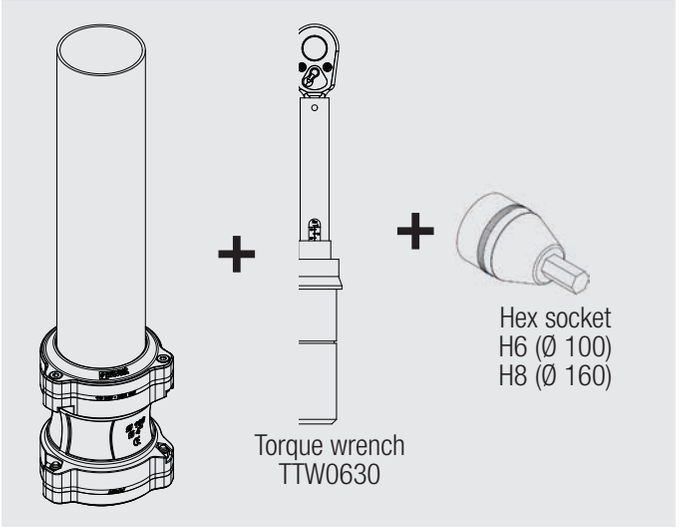
Ø (in)	Tightening torque (lbf ft.)	
	Min	Max
Ø 1/2”	5.9	8.85
Ø 3/4”	11.06	18.44
Ø 1”	15.48	25.81
Ø 1 1/4”	23.60	36.88
Ø 1 1/2”	23.60	36.88
Ø 2”	40.56	62.69
Ø 2 1/2”	47.94	70.07
Ø 3”	51.63	73.75
Ø 4”	18.44	20.65
Ø 6”	14.75	18.43

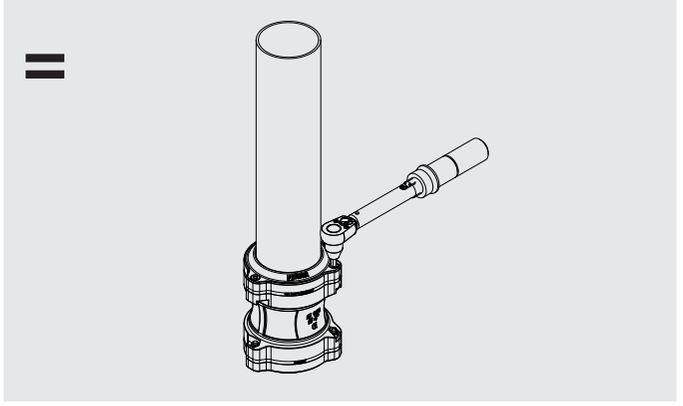
Ø PPS (mm)	Ø PPS (in)	Part number
Ø 16	**Ø 1/2""**	PPS1 CLE16
Ø 20	**Ø 3/4”**	PPS1 CLE20
Ø 25	**Ø 1”**	PPS1 CLE25
Ø 32	**Ø 1 1/4”**	PPS1 CLE32
Ø 40	**Ø 1 1/2”**	PPS1 CLE40
Ø 50	**Ø 2”**	PPS1 CLE50
Ø 63	**Ø 2 1/2”**	PPS1 CLE63
Ø 80	**Ø 3”**	PPS1 CLE80
Ø 16-20-25-100-160	**Ø 1/2” - 3/4” - 1” - 4”**	TTW 0630
Ø 20-32-40-50-63-80	**Ø 1 1/4” - 1 1/2” - 2” - 2 1/2” - 3”**	TTW 20100
Ø 16 to Ø 80	**Ø 1 1/4” to 3”**	PPS1 CLESTD

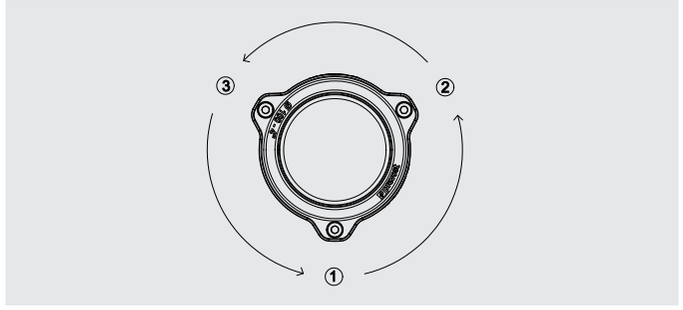
Screw for Ø 4” mm - Ø 6”

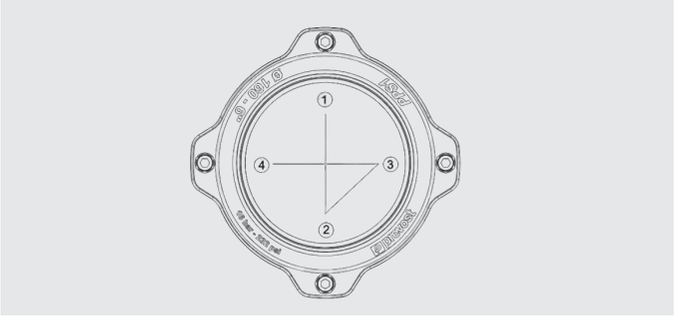
WARNING: Tighten the 4 M8 screws to the recommended torque value of 25 Nm (18.44 lbf ft.)

Repeat this step until the recommended torque value is reached.

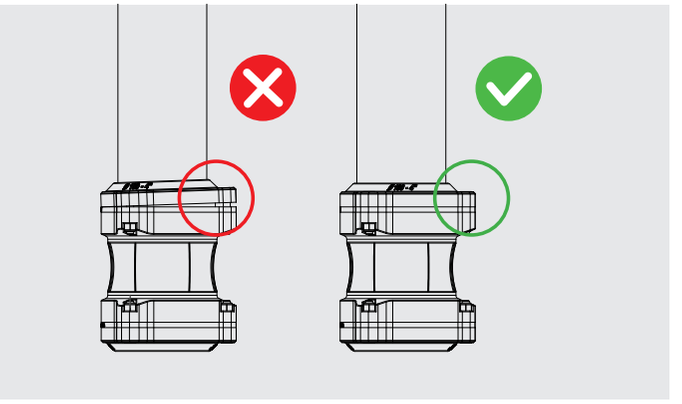








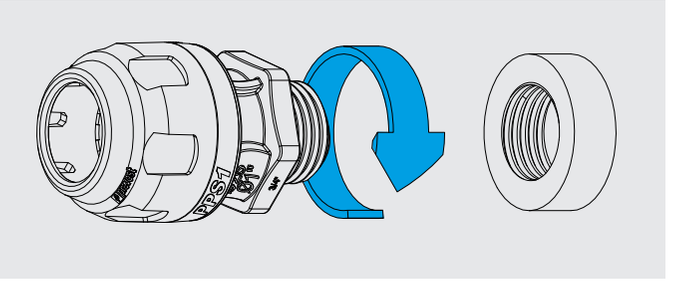
WARNING: Visually check the screws to make sure they are properly aligned.



6 - OTHER ASSEMBLY

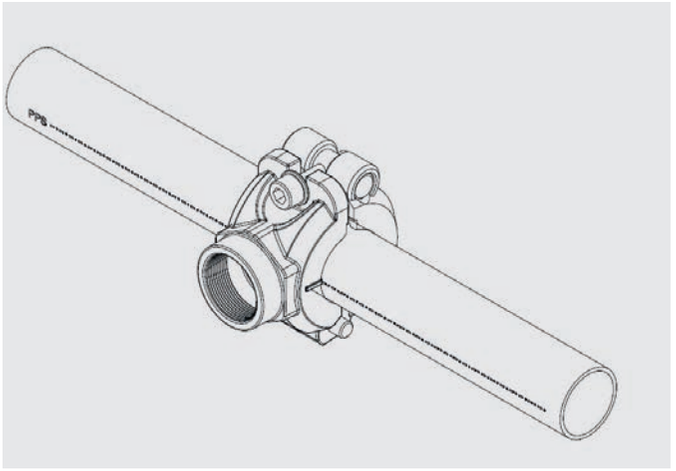
6.1 ASSEMBLY OF THREADED PARTS

Wrap or coat the male and female threads with Teflon® (***TEFLON 12***), tape or other sealant.

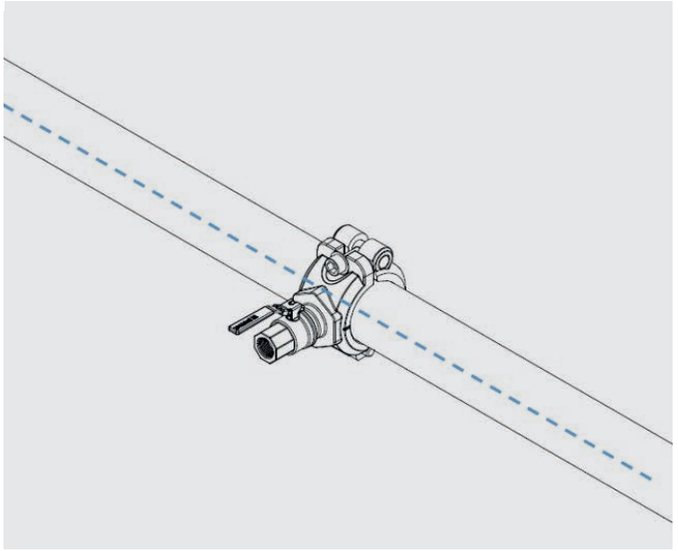


Thread	Turns of Teflon	Max. tightening torque (Nm)	Max. tightening torque (lbf ft)
3/8”	2 – 3	10	7.37
1/2”	2 – 3	12	8.85
3/4”	2 – 3	20	14.75
1”	2 – 3	35	25.81
1 1/4”	3 – 4	45	33.19
1 1/2”	3 – 4	55	40.56
2”	3 – 4	65	47.94
2 1/2”	4 – 5	70	51.63
3”	4 – 5	80	59

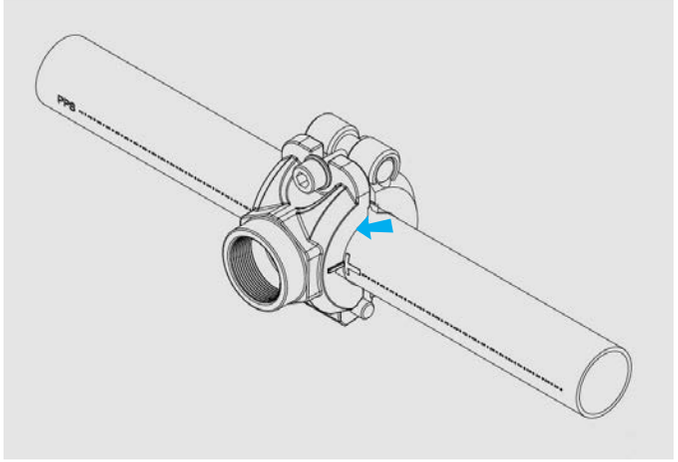
6.2 Straight Tapping flange - PPS1 BFT / PPS1 BFV

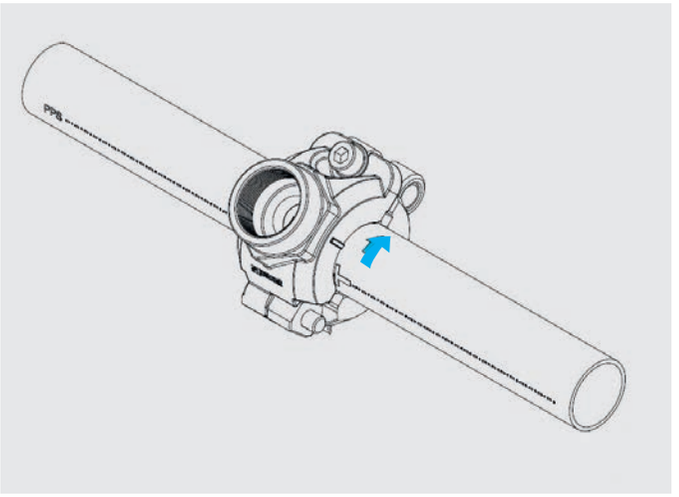


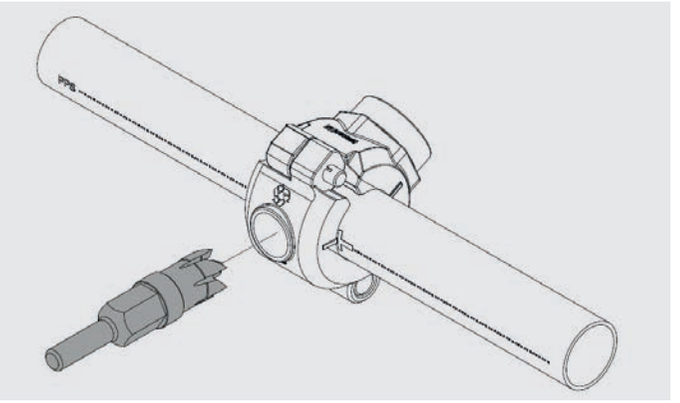
Use the notches on each side of the tapping flange to set the fitting to its desired position on the pipe.



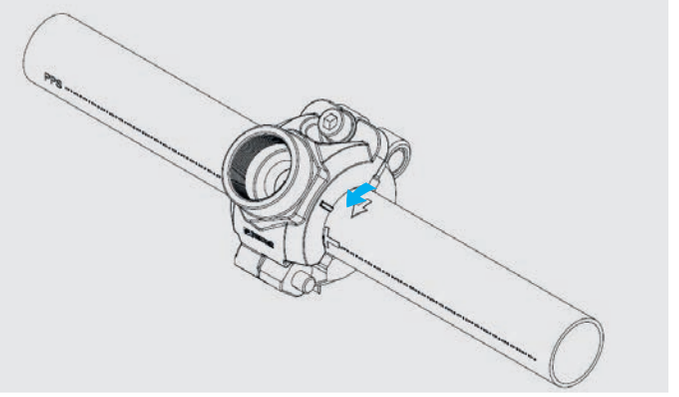
Use the notches as a guide to mark the position on the pipe with a felt tip marker.

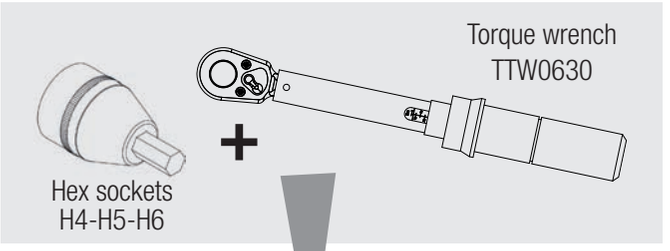


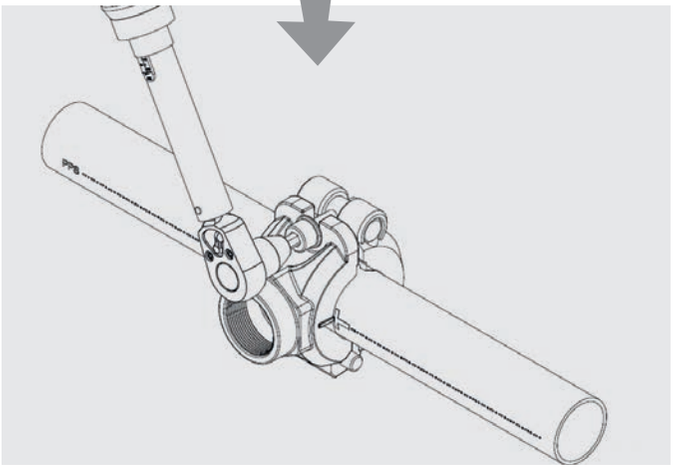




Ø ext. For pipe OD		Part number
(mm)	(in)	
Ø 25 to 32	Ø 1” to 1 1/4”	PPS SP16
Ø 40 to 50	Ø 1 1/2” to 2”	PPS SP22
Ø 63 to 80	Ø 2 1/2” to 3”	PPS SP30
Ø 100	Ø 4”	PPS SP41
Ø 160	Ø 6”	PPS SP64



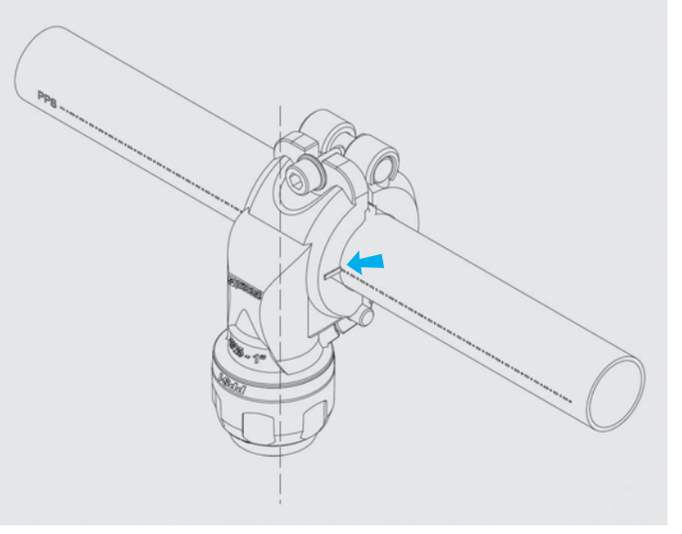




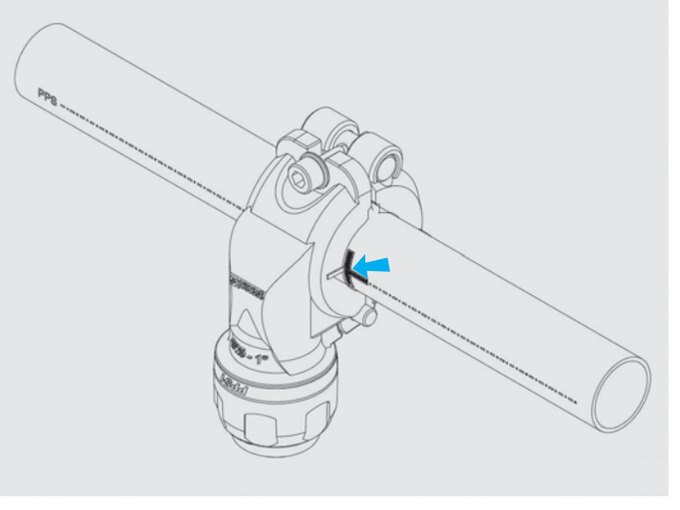
PPS1 BFT - PPS1 BFV (mm)	Tightening torque (Nm)	
	Min	Max
Ø 25	8	10
Ø 32	8	10
Ø 40	10	12
Ø 50	10	12
Ø 63	12	14
Ø 80	12	14
Ø 100	12	14
Ø 160	20	25

PPS1 BFT - PPS1 BFV (in)	Tightening torque (lbf ft.)	
	Min	Max
Ø 1”	5.9	7.37
Ø 1 1/4”	5.9	7.37
Ø 1 1/2”	7.37	8.85
Ø 2”	7.37	8.85
Ø 2 1/2”	8.85	10.32
Ø 3”	8.85	10.32
Ø 4”	8.85	10.32
Ø 6”	14.75	18.43

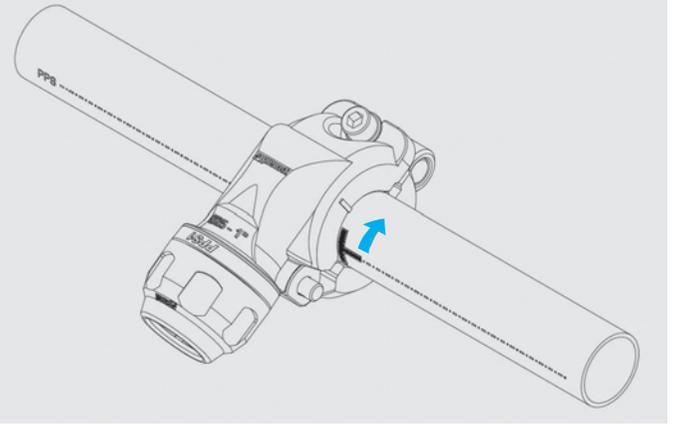
Tapping flange - PPS1 BP / PPS1 BT

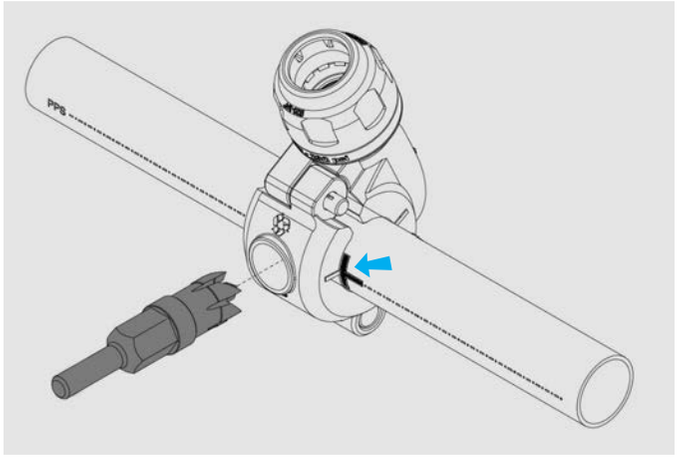


Use the notches on each side of the tapping flange to set the fitting to its desired position on the pipe.



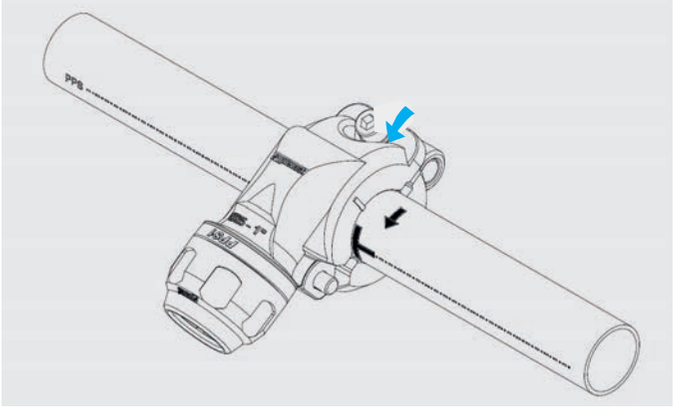
Use the notches as a guide to mark the position on the pipe with a felt tip marker.

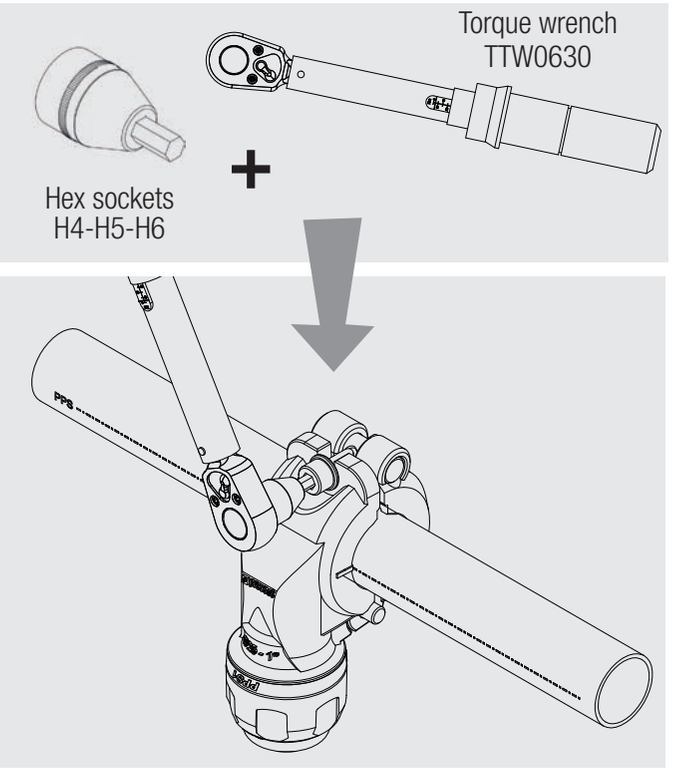




Warning: The pipe must be deburred before using this tool.
Failure to do so may damage the seal.

Ø ext. For pipe OD		Part number
(mm)	(in)	
Ø 25 to 32	Ø 1” to 1 1/4”	PPS SP16
Ø 40 to 50	Ø 1 1/2” to 2”	PPS SP22
Ø 63 to 80	Ø 2 1/2” to 3”	PPS SP30
Ø 100	Ø4”	PPS SP41
Ø 160	Ø 6”	PPS SP64



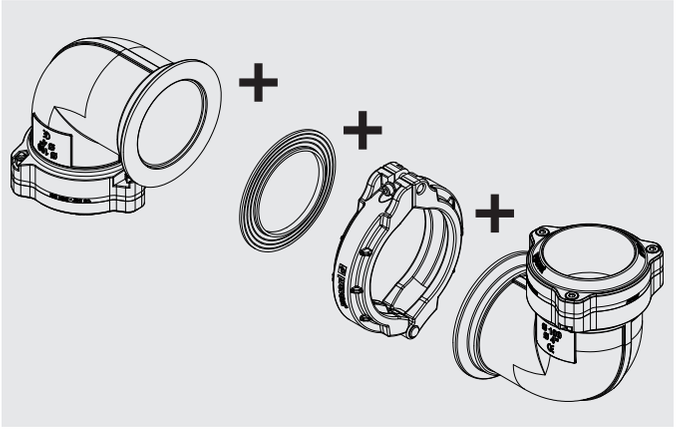


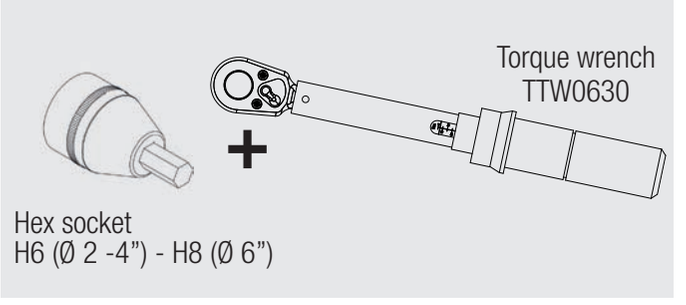
PPS1 BP - PPS1 BT (in)	Tightening torque (lbf ft.)	
	Min	Max
Ø 1”	5.9	7.37
Ø 1 1/4”	5.9	7.37
Ø 1 1/2”	7.37	8.85
Ø 2”	7.37	8.85
Ø 2 1/2”	8.85	10.32
Ø 3”	8.85	10.32
Ø 4”	8.85	10.32
Ø 6”	14.75	18.43

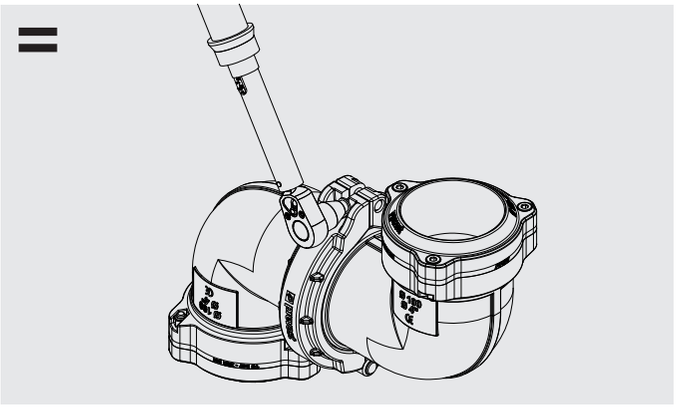
6.3 COMPACT CONNECTION CONCEPT - CC CONCEPT

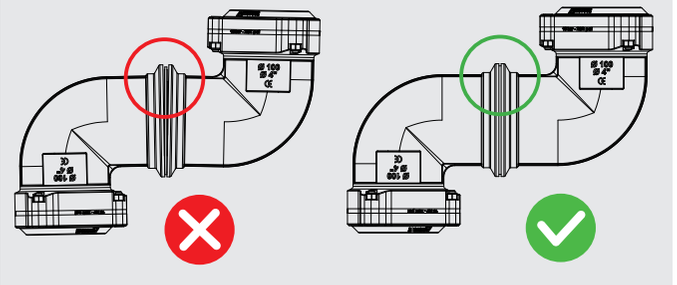
You can create the fitting configuration you need by using the following options:

Connection clamp – PPS1 CC





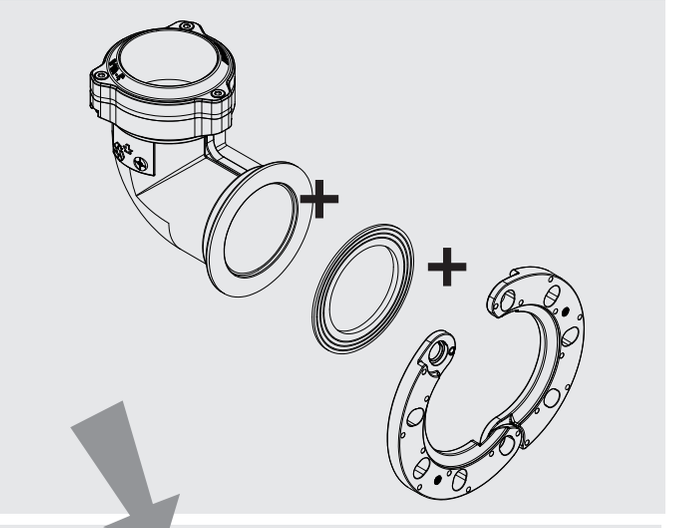


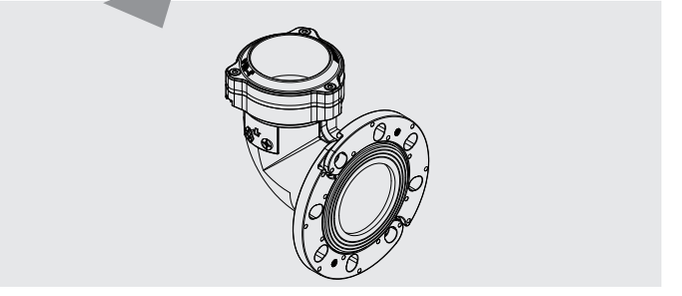


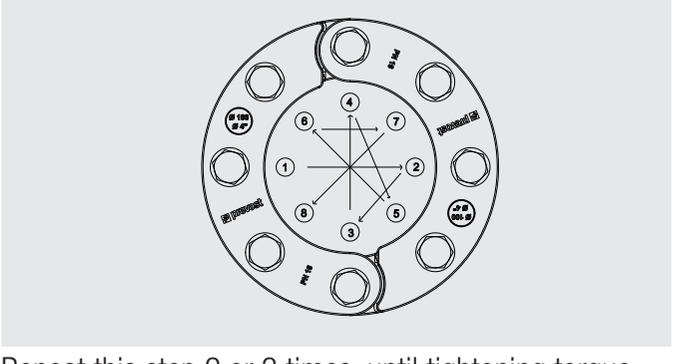
For PPS1 CC	Tightening torque (Nm)		Tightening torque (lbf ft)	
	Min	Max	Min	Max
Ø 50 to 160 mm Ø 2" to 6"	20	25	14.75	18.44

⚠ WARNING: Check alignment before tightening for a secure connection.

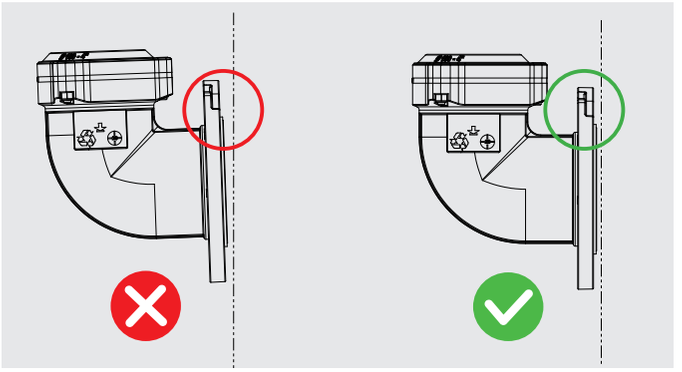
Connection flange – PPS1 FL







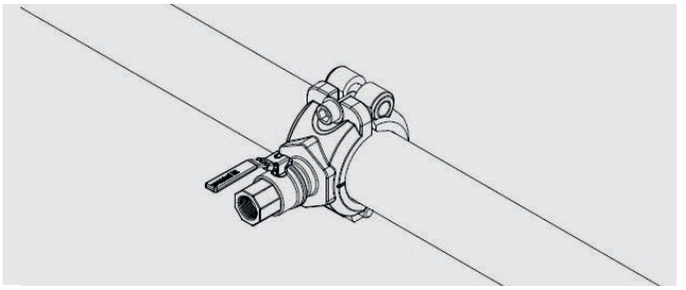
Repeat this step 2 or 3 times, until tightening torque 30 Nm is reached.



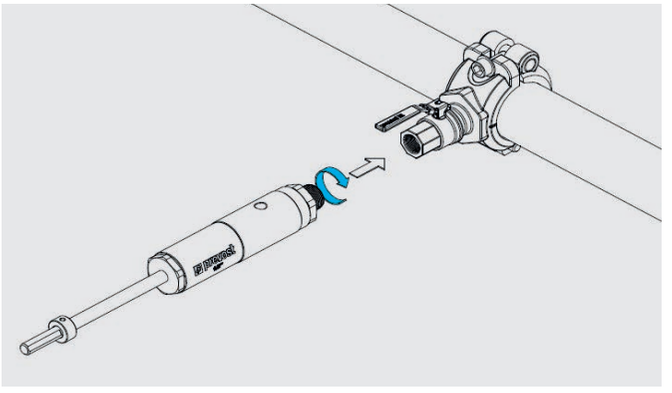
WARNING: Check alignment before tightening for a secure connection.

6.4 DRILLING TOOL FOR PRESSURIZED NETWORKS

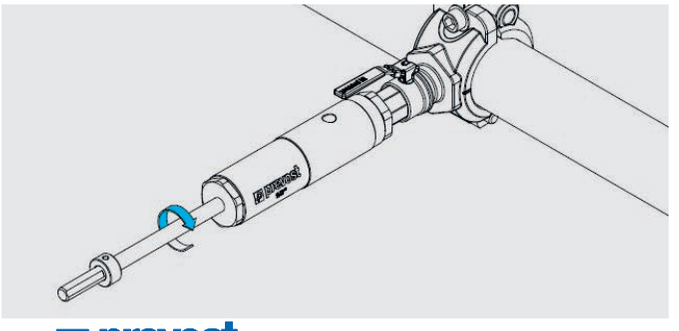
WARNING: The network is under pressure. Position the straight tapping flange ***PPS1 BFV.***



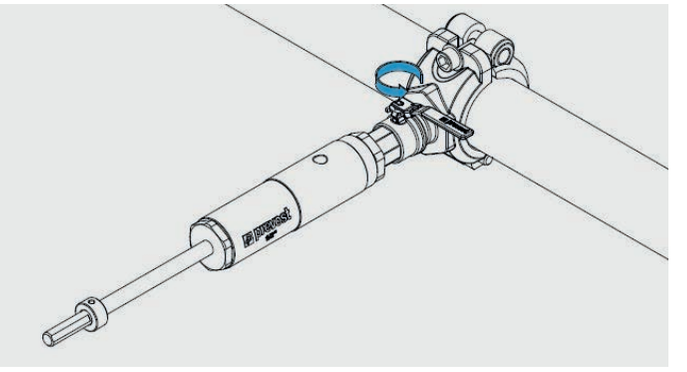
Screw on the drilling tool ***PPS DRIL***.



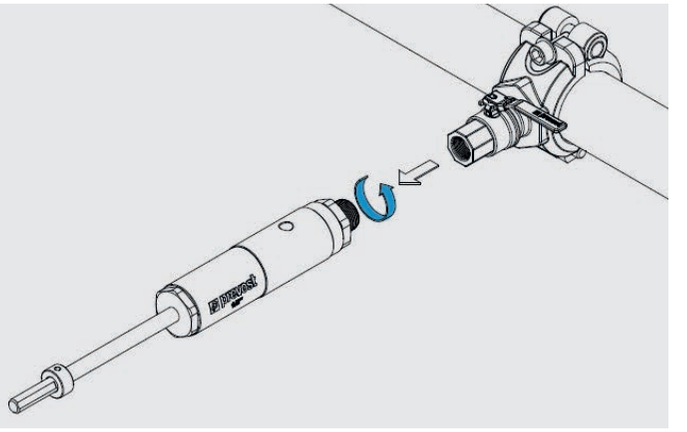
Drill.



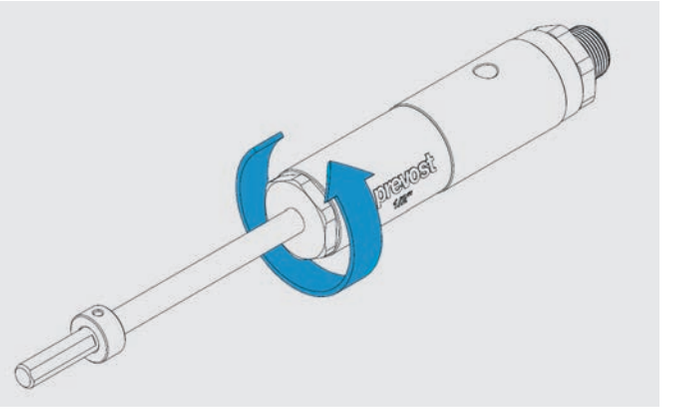
Close the valve.

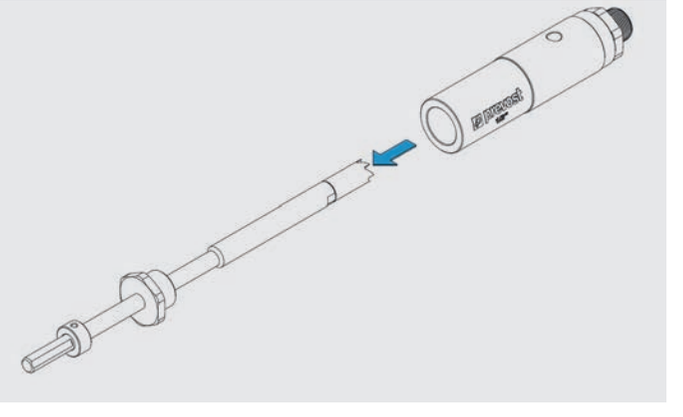


Unscrew the drilling tool ***PPS DRIL***.

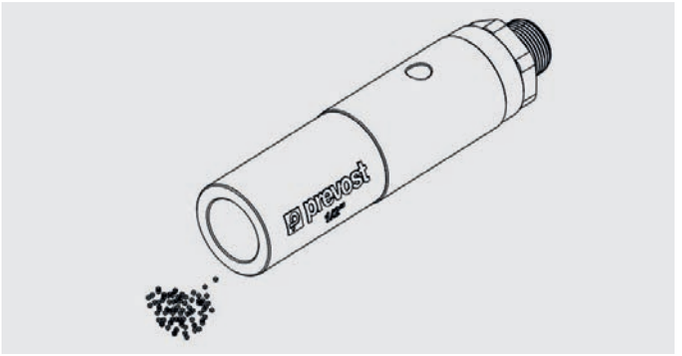


Clean the ***PPS DRIL***. Unscrew.



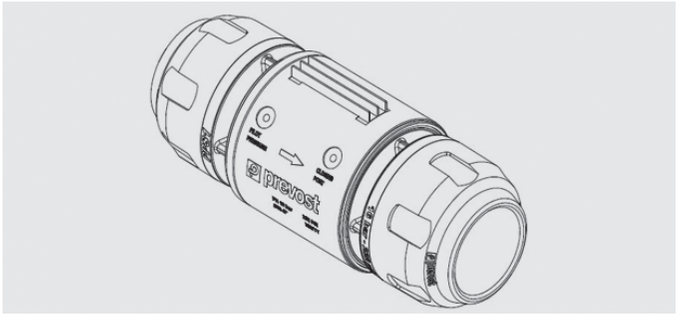


Remove the shavings.

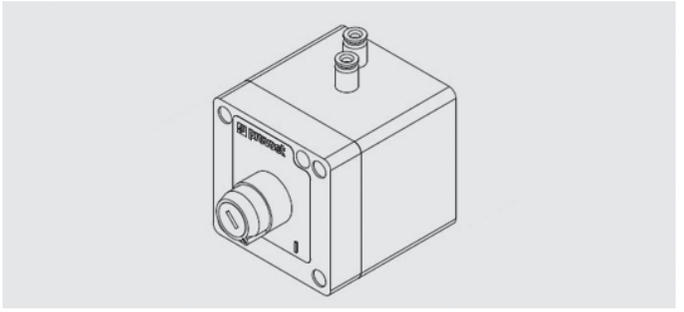


6.5 REMOTE CONTROLLED PNEUMATIC VALVE

PPS1 VP

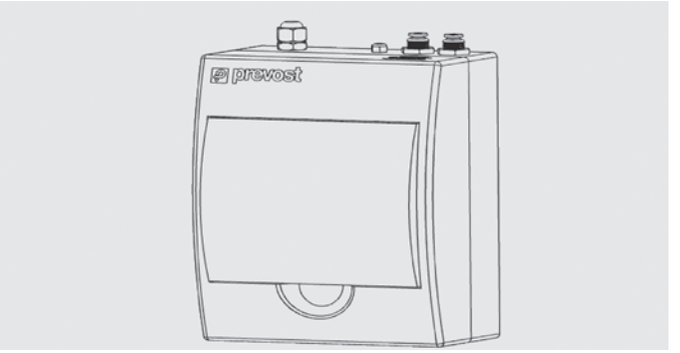


PPS RPK Remote control with lockable switch.

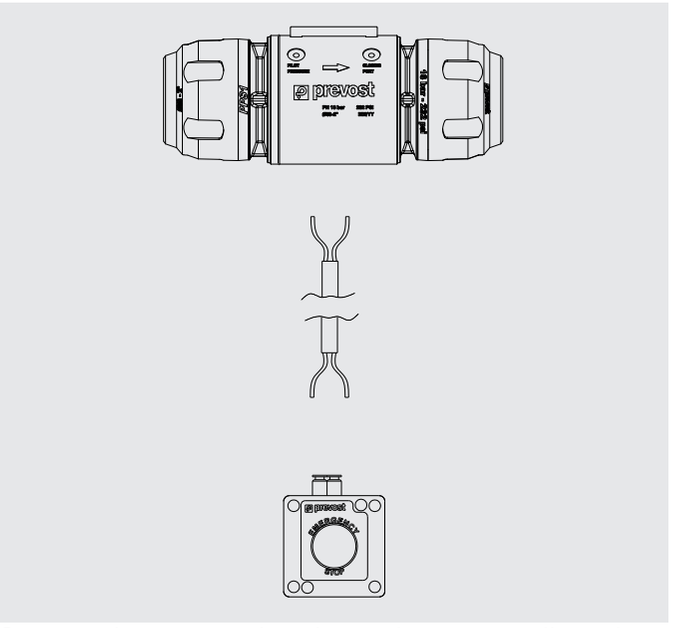


PPS RPE Remote control with emergency stop button.

PPS RPWT Remote control with timer.



PPS MTPA270412 PA 12 multitube 2 colors sleeves Ø ext. 4 mm - 12 m long (Ø ext. 0.16“ - 39’ long)



Connect the pneumatic valve to the remote pilot using 2, Ø 0.15” PA tubes. Note the “PILOT PRESSURE” and “CLOSING PORT” areas on the unit.

Label on the box.

prevost

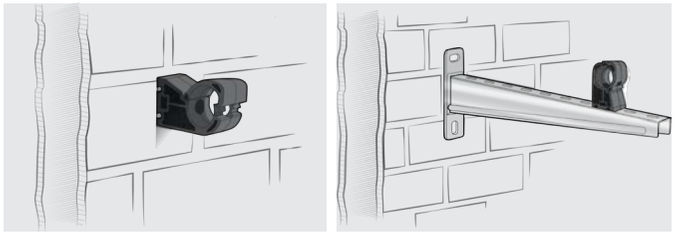
ÍNDICE

REQUISITOS PREVIOS ANTES DE UNA INSTALACION

La sala de compresores debe ser preferentemente amplia, bien ventilada, bien aislado y separada del resto del taller.

Los compresores serán conectados a la red ***PPS*** por flexibles con el fin de eliminar los riesgos liados a las vibraciones y permite un mantenimiento más cómodo (Flexibles LAM et LEM). Es importante instalar un bypass entre los compresores, entre el o los depósitos y los diferentes filtros.

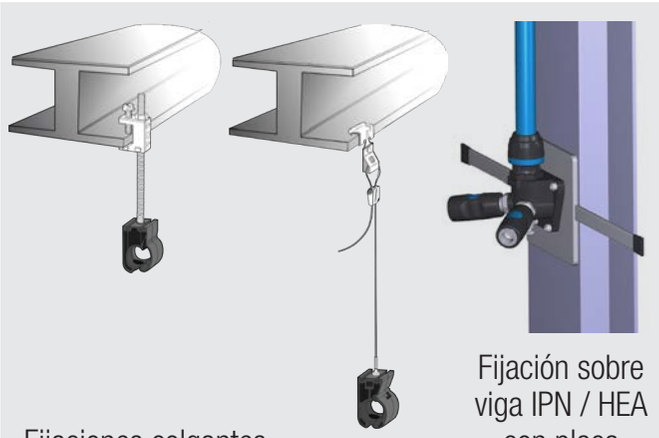
FIJACION DE LA RED



Fijaciones de pared

La red principal debe estar cerrada y debe ser instalada por razones de seguridad a una altura mínima de 2,5 m (8ft) del suelo. Los condensados residuales serán evacuadas de la red principal por bajadas directas a través de una te y equipados de un sistema de purgas automáticas.

Los diámetros de la red principal (canalización primaria) serán suficientemente importantes para evitar las perdidas de cargas y responder a las ampliaciones futuras. Serán fijadas con **un número suficiente de abrazaderas** deslizantes para asegurar su mantenimiento y permitir la dilatación o la contracción del tubo (Abrazaderas PPS CI). Una pendiente de 1% es también recomendada con el fin de dirigir los condensados hacia el punto más bajo (purgas).



Fijaciones colgantes

Fijación sobre viga IPN / HEA con placa

Los modelos de fijación son definidos en función de la configuración del edificio y debe ser realizado de manera óptima para obtener una alineación perfecta y una solidez del conjunto de la estructura.

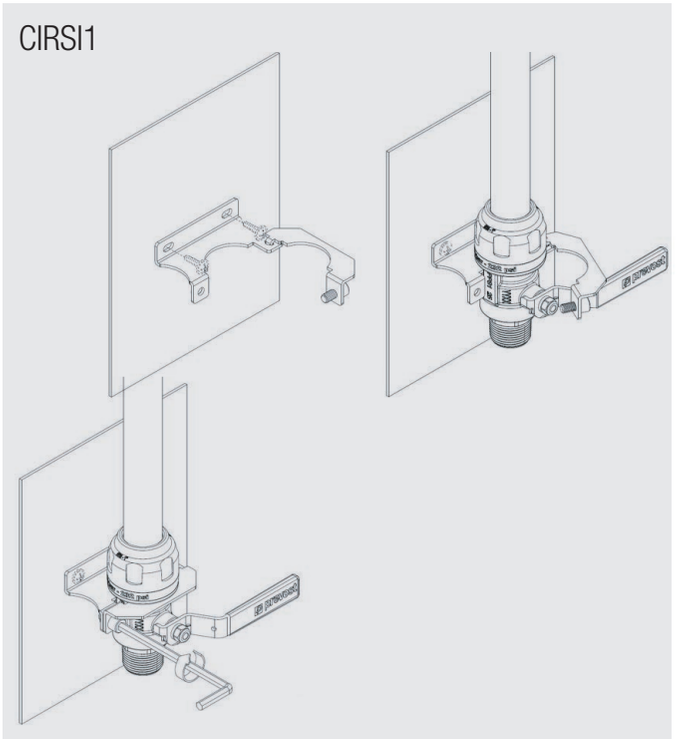
Es importante respetar la distancia entre las abrazaderas en la red principal. La distancia entre dos abrazaderas es de media unos 3 metros. (9ft)

El espacio entre 2 abrazaderas está definido en función del diámetro, de la temperatura, y del peso del fluido transportado. Está aconsejado seguir las separaciones siguientes:

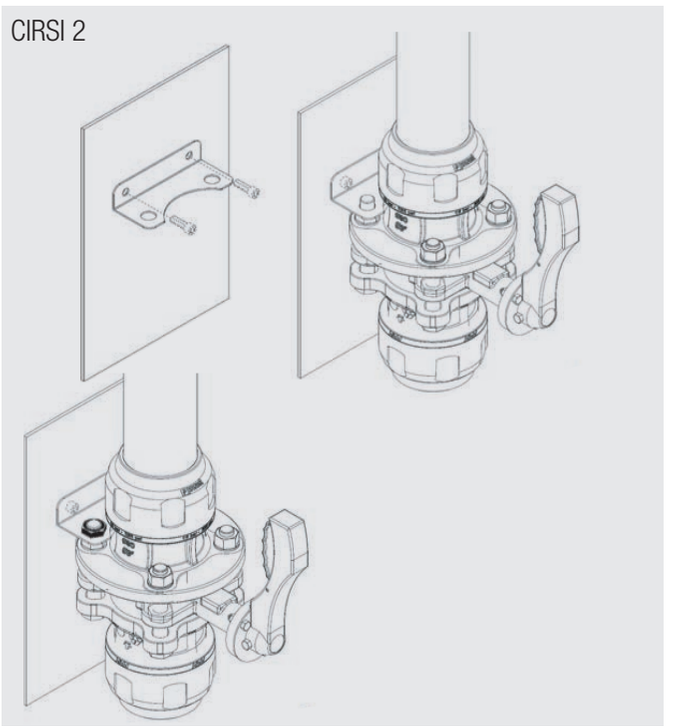
∅	Distanciamiento expresado en metros según la temperatura		
in	<68°F	86°F	104°F
1/2"	65 ft	65 ft	5 ft
3/4"	8 ft	65 ft	5 ft
1"	10 ft	8 ft	65 ft
1 1/4"	11 ft	10 ft	8 ft
1 1/2"	13 ft	11 ft	10 ft
2"	11 ft	10 ft	8 ft
2 1/2 "	11 ft	10 ft	8 ft
3 "	11 ft	10 ft	8 ft
4"	11 ft	10 ft	8 ft
6”	11 ft	10 ft	8 ft

Las abrazaderas no deben estar próximas a los racores ***PPS*** u otros accesorios con el fin de no bloquear el deslizamiento del tubo.

CIRSI1



CIRSI 2



PLETINAS DE FIJACIÓN SOBRE LAS VIGAS IPN/HEA PARA LOS ACCESORIOS DE LA RED

Permiten colocar de forma ergonómica y segura los puestos de trabajo.
Las pletinas metálicas tienen unos sistemas de agarre adaptados para las vigas IPN/HEA, permitiendo fijar rápidamente los elementos necesarios con toda seguridad, sin taladrar, sin soldar, en conformidad con las normas en vigor. Las pletinas están diseñadas para permitir el montaje de:

- Enrolladores abiertos o cerrados
- Apliques murales
- Conjuntos de tratamiento de aire ***Prevost filtration***
- Soportes universales + accesorios

DILATACION DE LOS MATERIALES

El aluminio está sujeto a la dilatación o la contracción en caso de variantes térmicas, estas pueden ser compensadas con dispositivos de absorción sobre la red principal.
Los flexibles juegan un papel fundamental sobre los tubos de diámetro pequeño y permiten igualmente realizar cambio de dirección (ángulos), o contornar obstáculos (pilares, vigas, etc..). Para los tubos de diámetros grandes, tenemos kits de dilatación que realizan esta función.

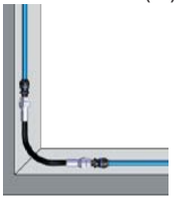
Coeficiente de dilatación: 0,024 mm por metro y por grado °C. La dilatación se calcula de la forma siguiente:

C = Coeficiente de dilatación
L = Longitud de la línea recta (entre 2 puntos fijos)
ΔT° = Diferencia entre la temperatura ambiente máxima y mínima en ° C.
DL = Dilatación global
Es decir DL = C x L x ΔT°

Ejemplo: 60 pies (720 pulgadas) de línea utilizando tubería de 1 1/2», a temperatura ambiente de 60°F con una temperatura de 100°F, es decir, una diferencia de 40°F.

DL: 13.7×10^{-6} x 720 (in) × 40°F = **0.39 in**

Flexible

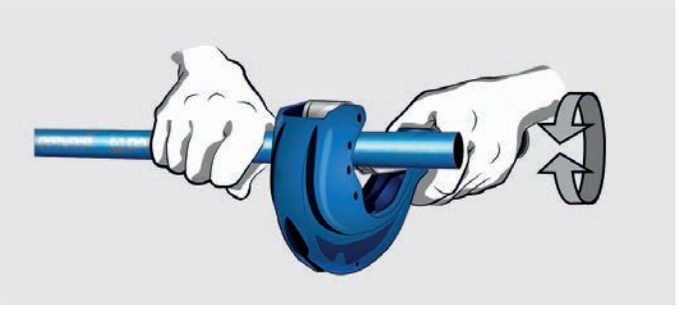


Kit de dilatación

1 - CORTAR EL TUBO

Cuidado: El corte debe ser recto y perpendicular al eje del tubo.

Nota: Compruebe que la superficie del extremo del tubo no esté dañada. Evite los arañazos y los impactos para lograr una operación de calidad.

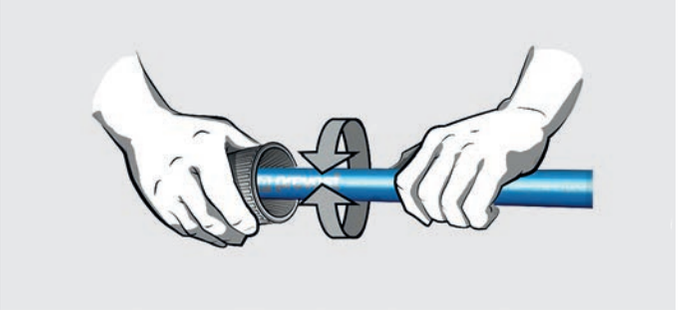


Ø (mm)	Ø (in)	Cortatubos
Ø 16 a 63	Ø 1/2" to 2 ½"	PPS CTU63
Ø 63 a 100	Ø 2 1/2" to 4"	PPS CTU110
Ø 160	Ø 6"	PPS CTU160

2 - BISELADO Y DESBARBADO

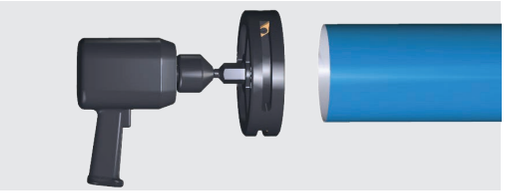
■ MANUAL

Tras el corte, desbarbe el tubo por el interior con la herramienta ***PPS CHERAP*** y realice siempre un biselado exterior con las herramientas adaptadas. Compruebe la buena calidad del biselado y la ausencia de virutas dentro del tubo.



Ø (mm)	Ø (in)	Herramientas de biselado
Ø 16 a 50	Ø 1/2" to 2 ½"	PPS CH50
Ø 63 a 100	Ø 2 1/2" to 4"	PPS CH110

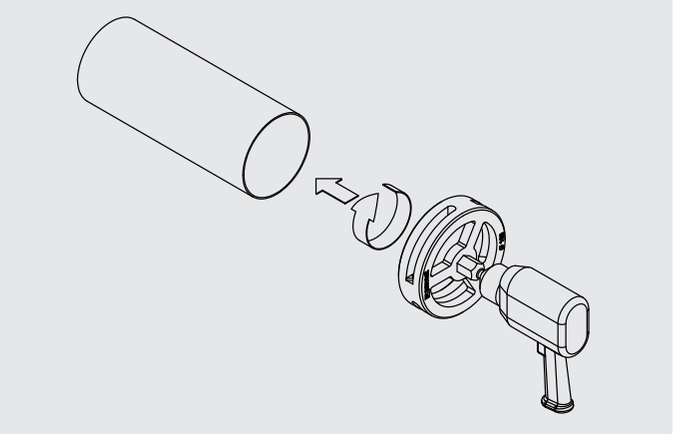
■ BISELADO MECÁNICO



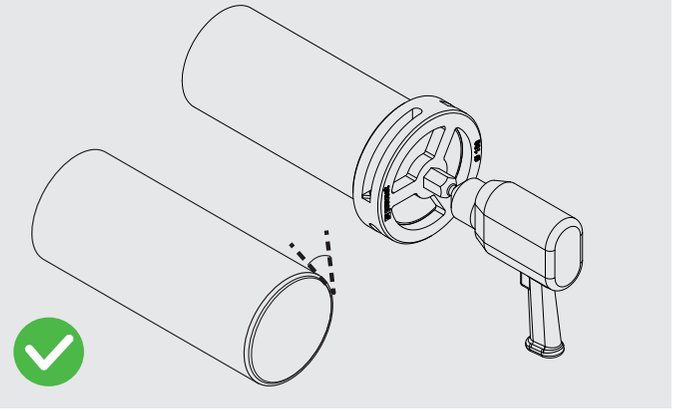
Ø (mm)	Ø (in)	Herramientas de biselado
Ø 16 a 20	Ø 1/2 to 3/4»	PPS CHPD2016
Ø 25	Ø 1»	PPS CHPD25
Ø 32	Ø 1 1/4»	PPS CHPD32
Ø 40	Ø 1 1/2»	PPS CHPD40
Ø 50	Ø 2»	PPS CHPD50
Ø 63	Ø 2 1/2»	PPS CHPD63
Ø 80	Ø 3»	PPS CHPD80
Ø 100	Ø 4»	PPS CHPD100
Ø 160	Ø 6»	PPS CHPD160

Cuidado: Utilice gafas y guantes de protección.

Cuidado: Es imprescindible seguir esta etapa para facilitar la instalación y evitar dañar la junta del racor. Compruebe el sentido de rotación del taladro antes de empezar a actuar en el tubo.

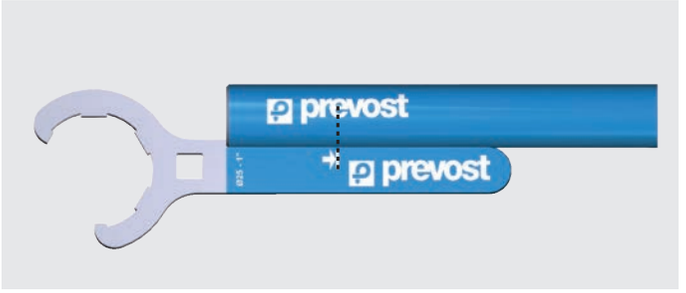


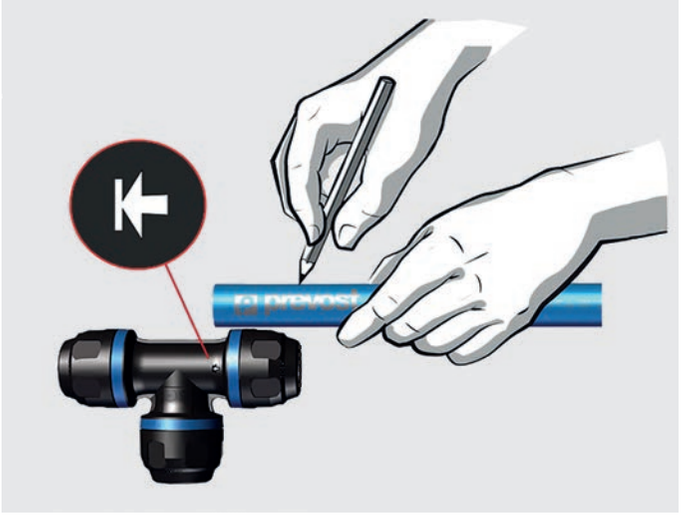
No fuerce demasiado en dirección al tubo.



3 - MARQUE EL TUBE

Marque una referencia en el tubo para determinar la longitud de penetración del tubo en el racor (según tabla). La referencia en el enchufe (o en la llave de apriete ***PPS1 CLE***) permite determinar más fácilmente la longitud de penetración.

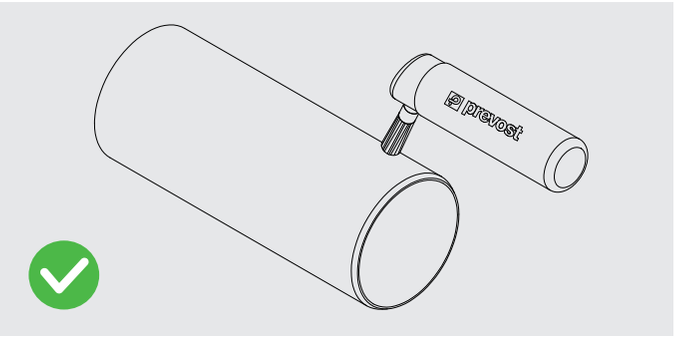




Ø (mm)	Longitud(mm)	Ø (in)	Longitud(in)
Ø 16	32	**1/2 "**	1.25
Ø 20	38	**Ø 3/4 "**	1.5
Ø 25	44	**Ø 1 "**	1.73
Ø 32	52	**Ø 1 1/4 "**	2
Ø 40	62	**Ø 1 1/2 "**	2.44
Ø 50	72	**Ø 2 "**	2.8
Ø 63	83	**Ø 2 1/2 "**	3.25
Ø 80	95	**Ø 3 "**	3.7
Ø 100	95	**Ø 4 "**	3.7
Ø 160	120	**Ø 6 "**	4.7

4- LUBRICADO DEL TUBO

Tras el corte, compruebe el estado de la superficie y elimine los residuos con un trapo húmedo y un producto desengrasante no agresivo.
Para facilitar el ensamblaje de las diferentes piezas, utilice siempre el gel de montaje ***PPS AL*** (Evite utilizar lubricantes, aceites o cuerpos grasos de compatibilidad química dudosa).



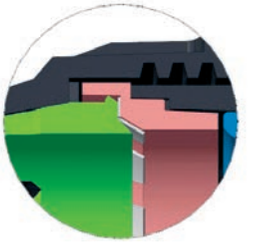
5 - ENSAMBLAJE DE LOS RACORES AL TUBO

5.1 MONTAJE TUBO/RACOR

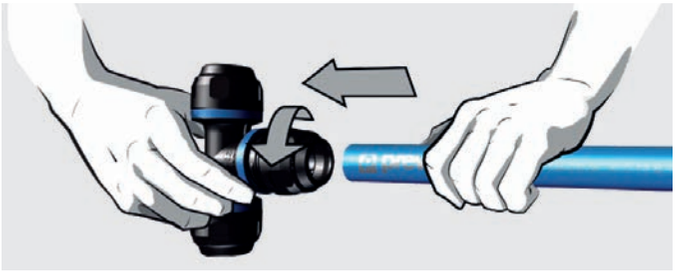
5.1.a Inserción manual Ø 1/2 - 3”

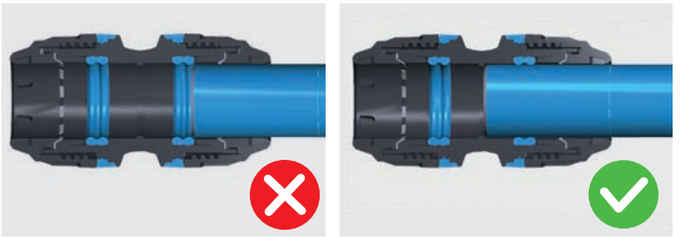
2. Afloje como mínimo una vuelta la tuerca sin desmontarla.

3. Compruebe la presencia y la posición de todos los componentes en el racor. Compruebe la orientación de las mordazas sin desmontar el racor (según esquema).

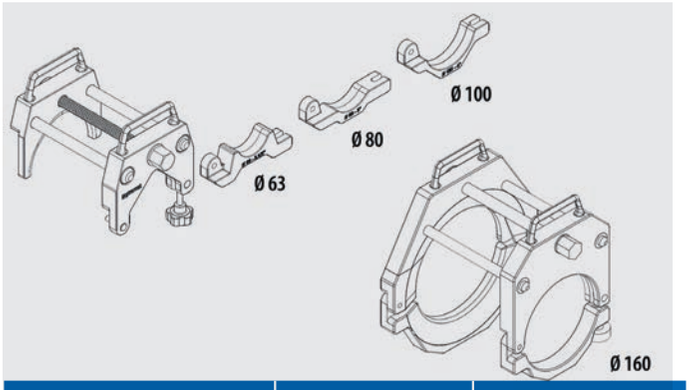


4. Encaje el tubo ejerciendo una ligera rotación hasta alcanzar la longitud de penetración. Se recomienda aplicar el gel de montaje Prevost (PPS AL) en los extremos de los tubos y las conexiones. Evite utilizar lubricantes, aceites o cuerpos grasos de compatibilidad química dudosa.





5.1.b Herramienta de montaje tubo/ racor (PPS INS) Ø 2 1/2 - 6”

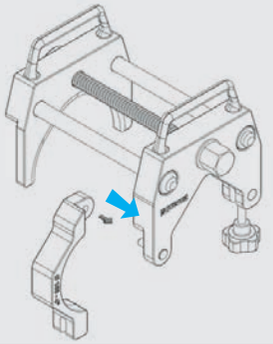


Ø Tubo PPS (mm)	Ø PPS pipe (in)	Referencia
Ø 63 - Ø 80 - Ø 100	**Ø 2 1/2" - Ø 3" - Ø 4"**	PPS INS63100
Ø 160	**Ø 6"**	PPS1 INS160

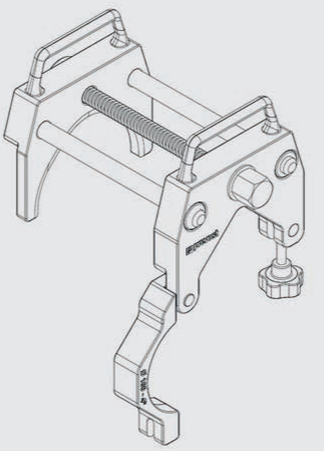
Cuidado: Es obligatorio desbarbar el tubo antes de utilizar esta herramienta.
Sin esta acción podría dañar la junta.

Cómo posicionar la herramienta sobre el tubo y el racor

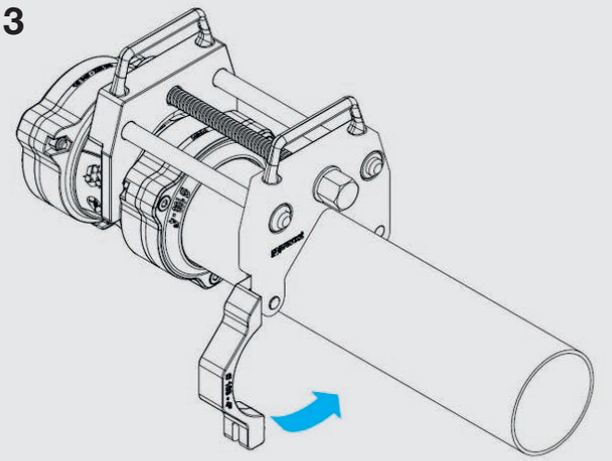
1



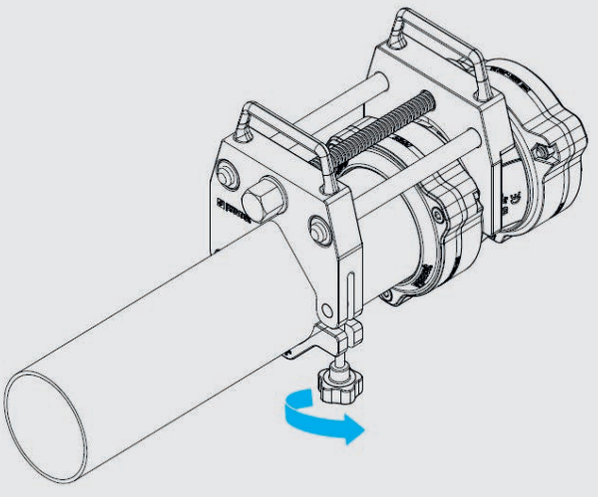
2



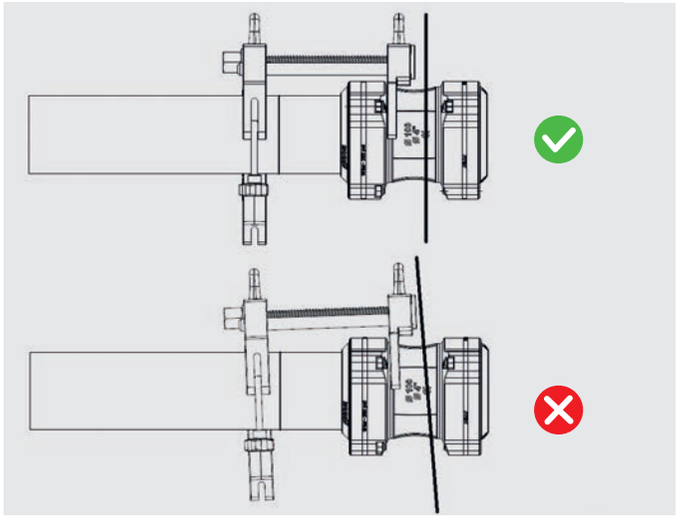
3

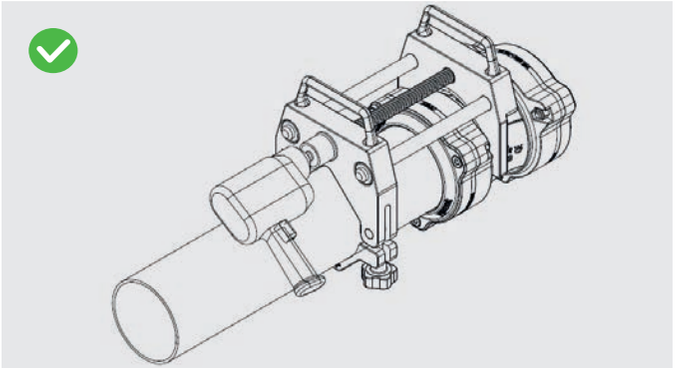


4



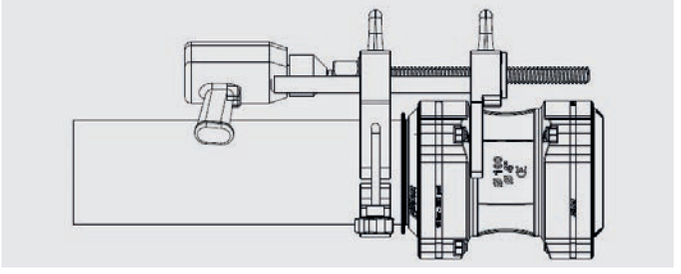
CUIDADO: Para un apriete de calidad, controle la alineación de las piezas am ensamblarlas..

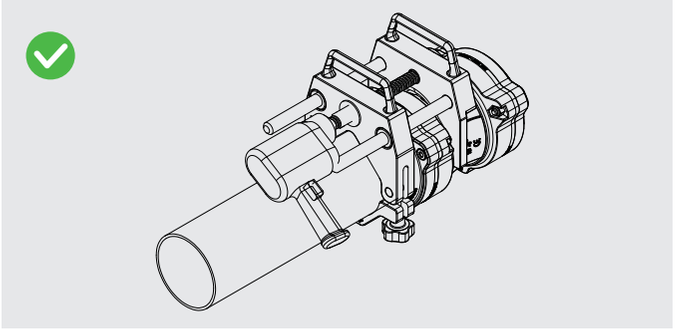




Durante el apriete, mantenga el racor en posición en el extremo del tubo

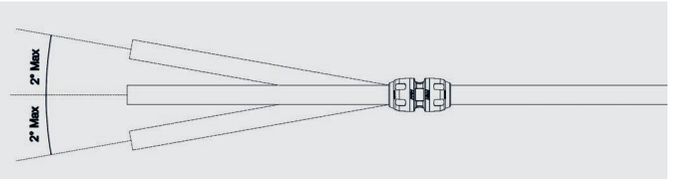
No utilice la herramienta de presión con accesorios CC o FL premontados (ex: PPS1 DK , PPS1 RSI)



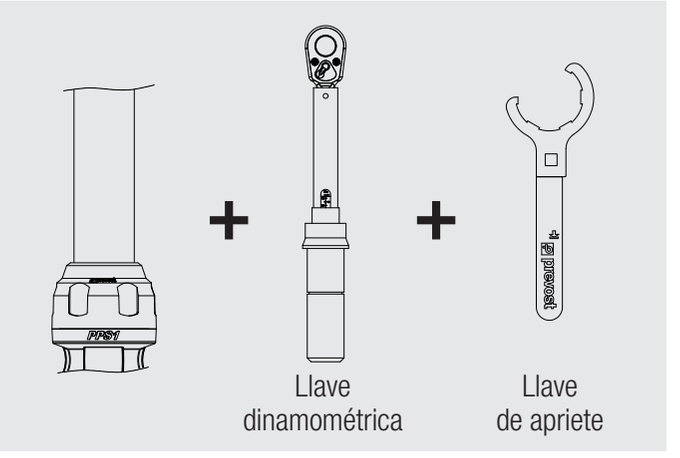


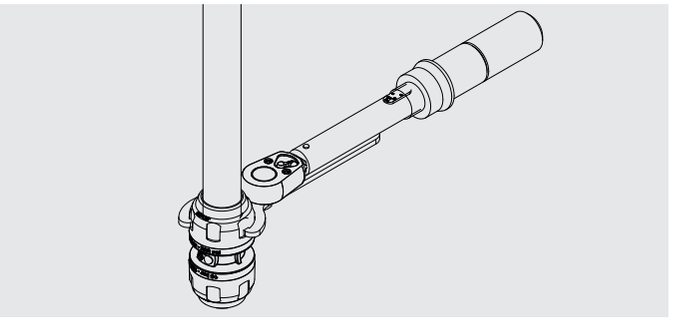
5.2 APRIETE

Cuidado: Antes de apretar la tuerca, compruebe la correcta alineación del tubo con el racor para evitar fugas.



Tuercas del Ø 1/2” al Ø 3”





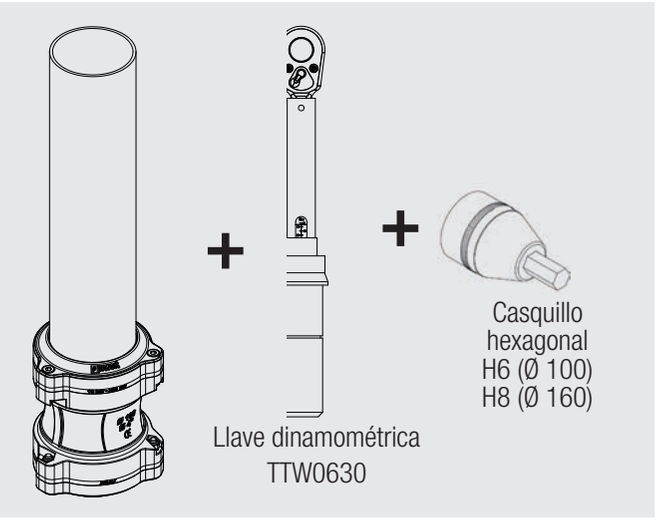
Cuidado: Apriete cada tuerca hasta el valor de par recomendado.

asegurarse de que los demás racores queden apretados.

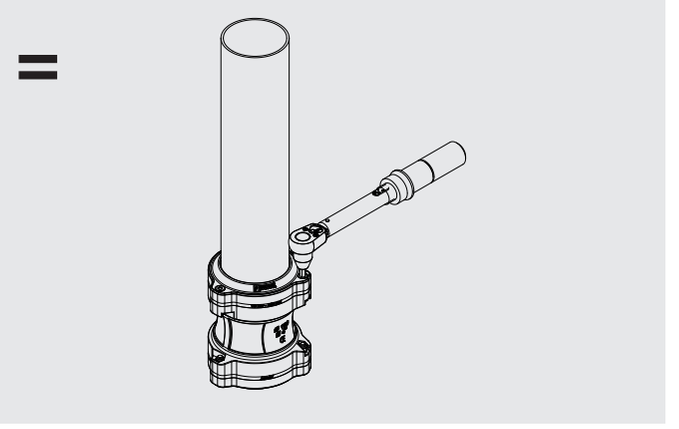
Ø PPS (in)	Referencia
Ø 1/2"	PPS1 CLE16
Ø 3/4"	PPS1 CLE20
Ø 1"	PPS1 CLE25
Ø 1 1/4"	PPS1 CLE32
Ø 1 1/2"	PPS1 CLE40
Ø 2"	PPS1 CLE50
Ø 2 1/2"	PPS1 CLE63
Ø 3"	PPS1 CLE80
Ø 1/2" - 3/4" - 1" - 4" - 6”	TTW 0630
Ø 1 1/4" - 1 1/2" - 2" - 2 1/2" - 3"	TTW 20100
Ø 1 1/4" to 3"	PPS1 CLESTD

Ø (in)	Par de apriete (lbf ft.)	
	Min	Max
Ø 1/2"	5.9	8.85
Ø 3/4"	11.06	18.44
Ø 1"	15.48	25.81
Ø 1 1/4"	23.60	36.88
Ø 1 1/2"	23.60	36.88
Ø 2"	40.56	62.69
Ø 2 1/2"	47.94	70.07
Ø 3"	51.63	73.75
Ø 4"	18.44	20.65
Ø 6"	18.44	20.65

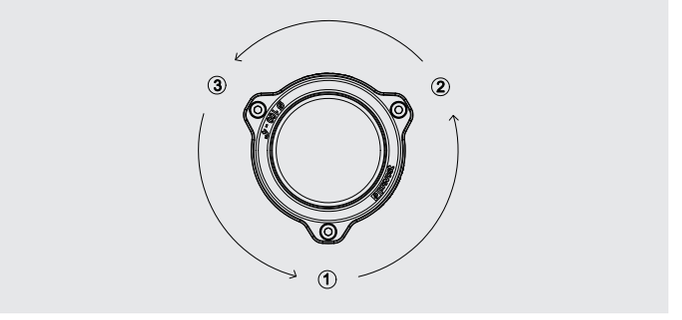
Tornillo para Ø 4” - Ø 6”

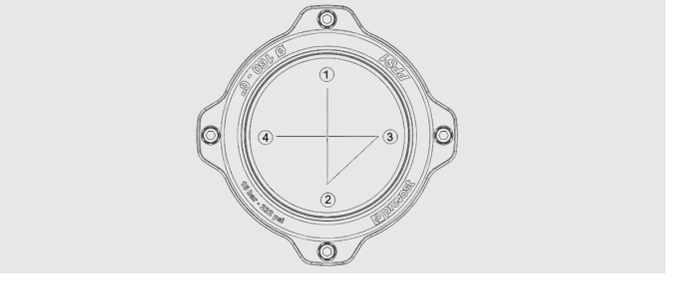


Cuidado: Apriete los tres 3 tornillos M8 hasta el valor de par recomendado de 25 Nm.

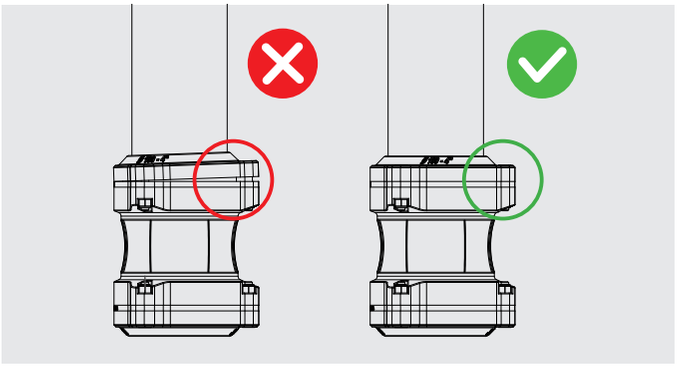


Repita esta etapa hasta alcanzar el valor de apriete deseado.





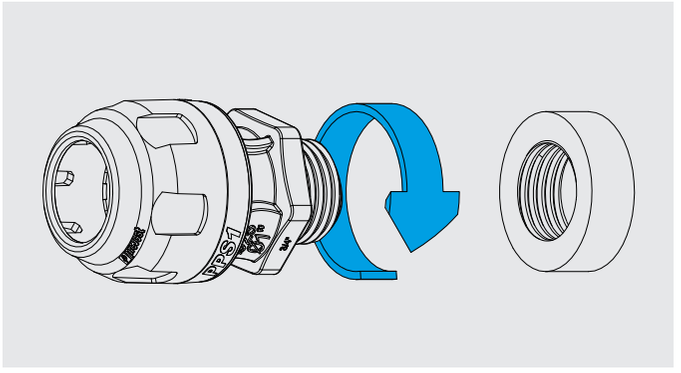
Cuidado: Para un apriete de los tornillos de calidad, compruebe la alineación.



6 - OTROS ENSAMBLAJES

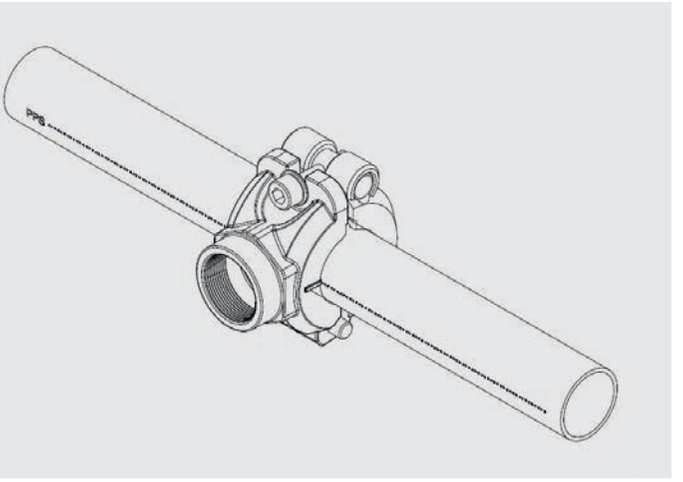
6.1 ENSAMBLAJE DE PIEZAS ROSCADAS

Para ensamblar las rocas macho y hembra, recomendamos utilizar Teflón® (***TEFLÓN 12***), cinta Teflón u otro producto de estanqueidad de fontanería.

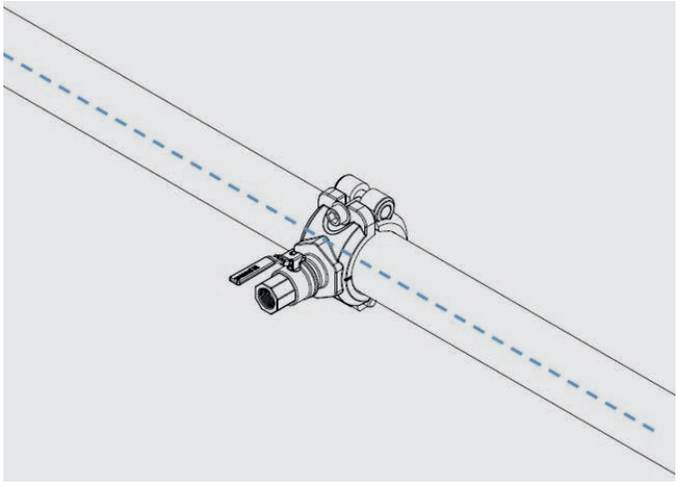


Rosca	Vueltas de Teflon	Par de apriete máx. (Nm)
3/8”	2 - 3	10
1/2”	2 - 3	12
3/4”	2 - 3	20
1”	2 - 3	35
1 1/4”	3 - 4	45
1 1/2”	3 - 4	55
2”	3 - 4	65
2 1/2”	4 - 5	70
3”	4 - 5	80

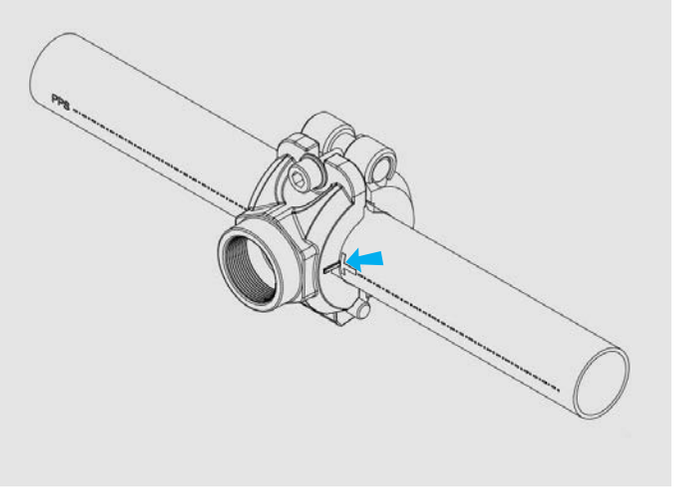
6.2 BRIDA DE DERIVACIÓN RECTA PPS1 BFT / PPS1 BFV

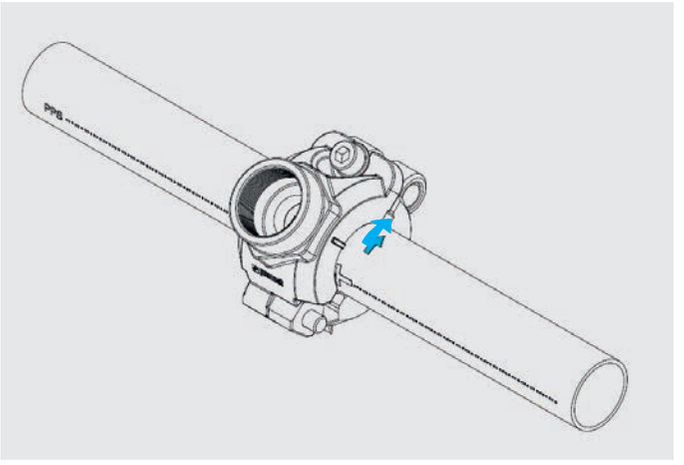


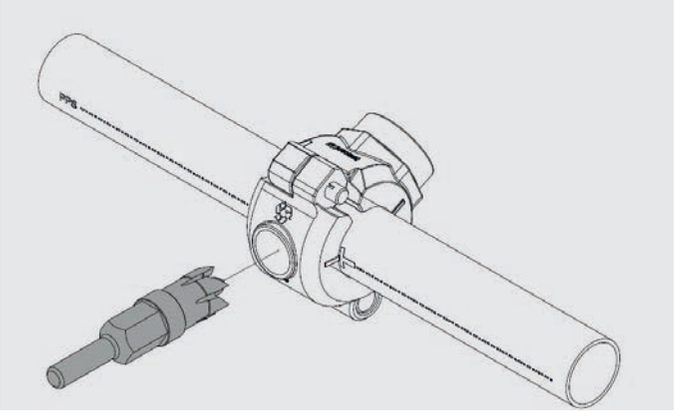
Ajuste la brida de derivación en la posición deseada utilizando el doble marcado en el tubo.



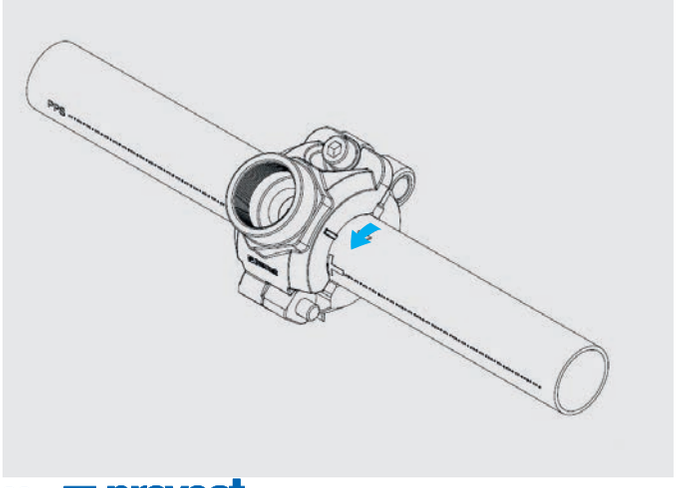
Marque la posición preseleccionada utilizando las referencias previstas a dicho efecto (muescas).

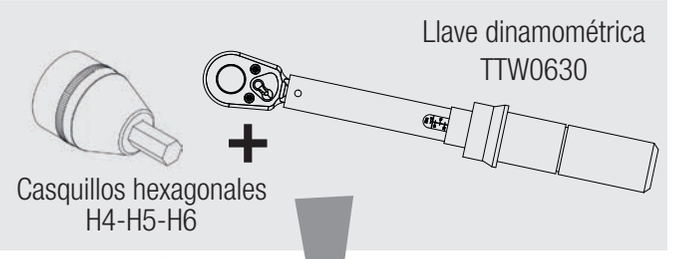


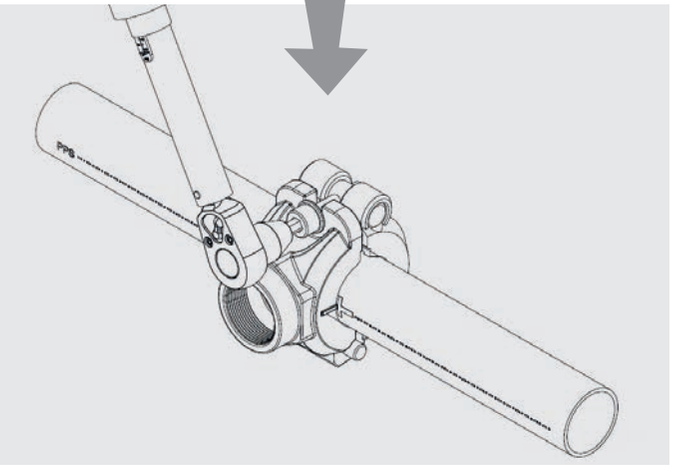




Ø ext. (mm)	(in)	Referencia
Ø 25 a 32	Ø 1” to 1 1/4”	PPS SP16
Ø 40 a 50	Ø 1 1/2” to 2”	PPS SP22
Ø 63 a 80	Ø 2 1/2” to 3”	PPS SP30
Ø 100	Ø 4”	PPS SP41
Ø 160	Ø 6”	PPS SP64

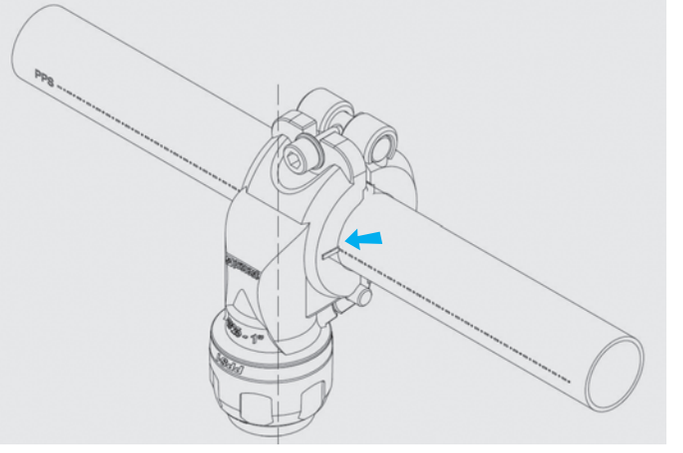




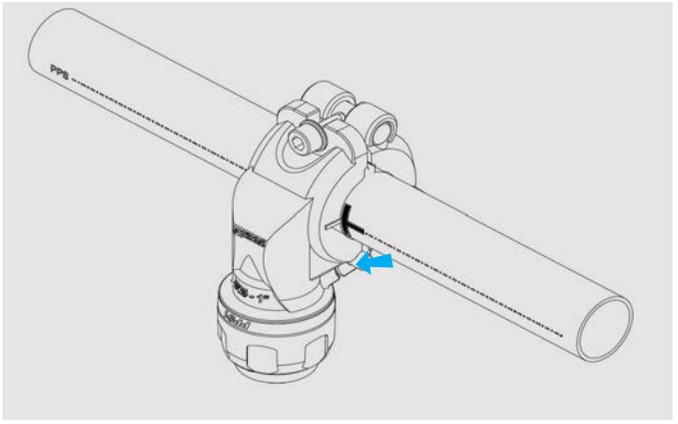


PPS1 BFT PPS1 BFV (in)	Par de apriete (LBF FT.)	
	Min	Max
Ø 1”	5.9	7.37
Ø 1 1/4”	5.9	7.37
Ø 1 1/2”	7.37	8.85
Ø 2”	7.37	8.85
Ø 2 1/2”	8.85	10.32
Ø 3”	8.85	10.32
Ø 4”	8.85	10.32
Ø 6”	14.75	18.43

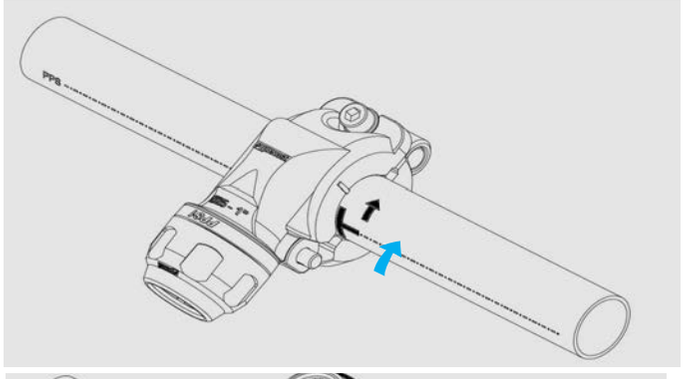
Brida de derivación PPS1 BP / PPS1 BT

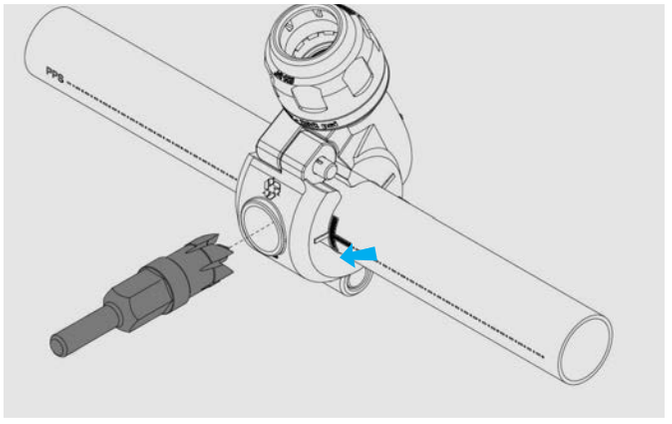


Ajuste la brida de derivación en la posición deseada utilizando el doble marcado en el tubo.



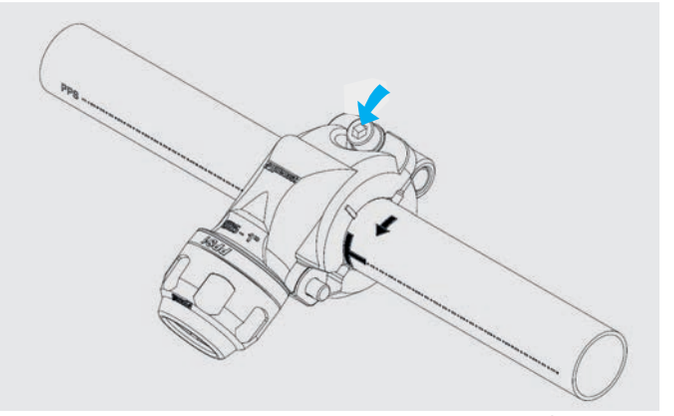
Marque la posición preseleccionada utilizando las referencias previstas a dicho efecto (muescas).



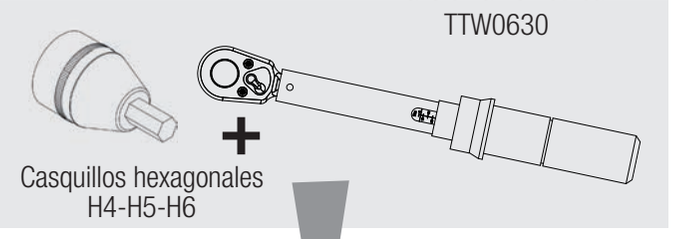


Cuidado: Es obligatorio desbarbar el tubo antes de utilizar esta herramienta.
Sin esta acción podría dañar la junta.

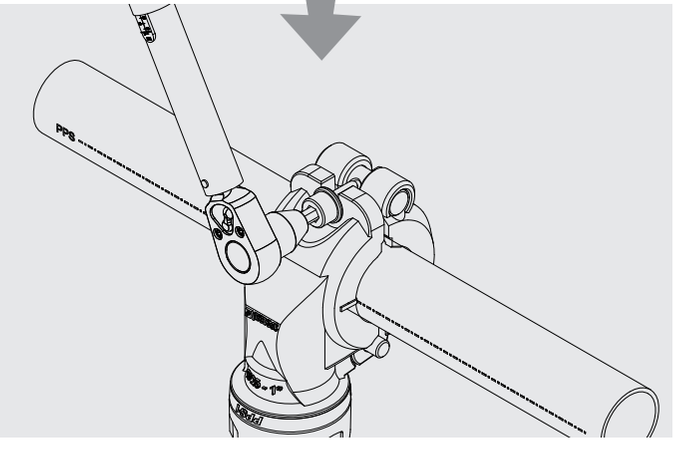
Ø ext. (mm)	(in)	Referencia
Ø 25 a 32	**Ø 1" to 1 1/4"**	PPS SP16
Ø 40 a 50	**Ø 1 1/2" to 2"**	PPS SP22
Ø 63 a 80	**Ø 2 1/2" to 3"**	PPS SP30
Ø 100	**Ø 4"**	PPS SP41
Ø 160	**Ø 6"**	PPS SP64



Llave dinamométrica
TTW0630



Casquillos hexagonales
H4-H5-H6

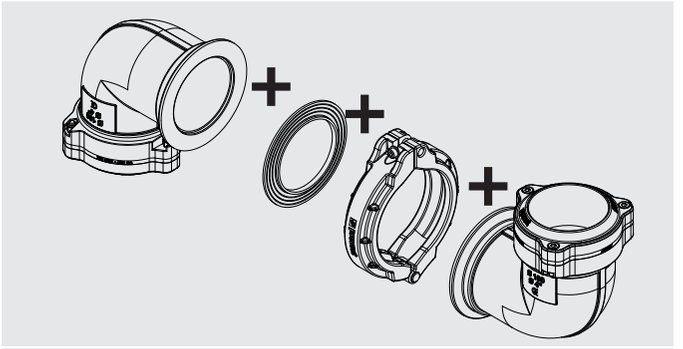


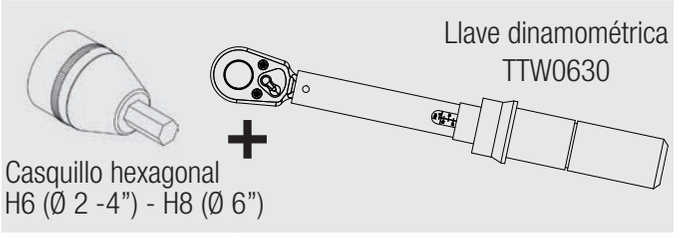
PPS1 BP PPS1 BT	Par de apriete (Nm)	
	Min	Max
Ø 25	8	10
Ø 32	8	10
Ø 40	10	12
Ø 50	10	12
Ø 63	12	14
Ø 80	12	14
Ø 100	12	14

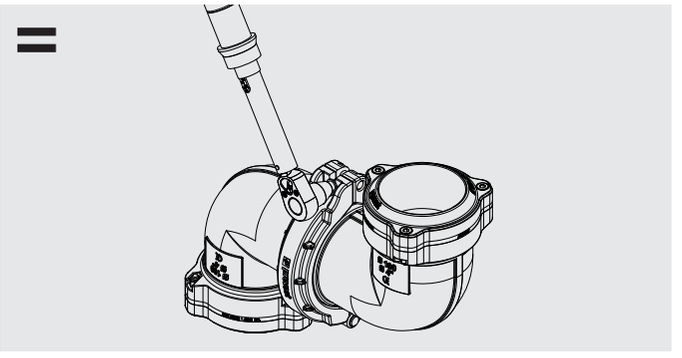
6.3 CONCEPTO DE CONEXIÓN COMPACTA - CC CONCEPT

Puede crear la configuración de enchufes que necesita con las opciones siguientes:

Abrazadera de conexión – PPS1 CC

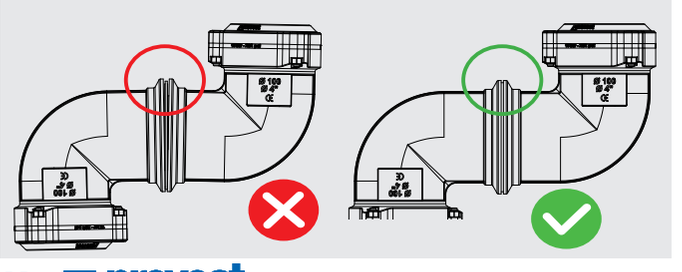




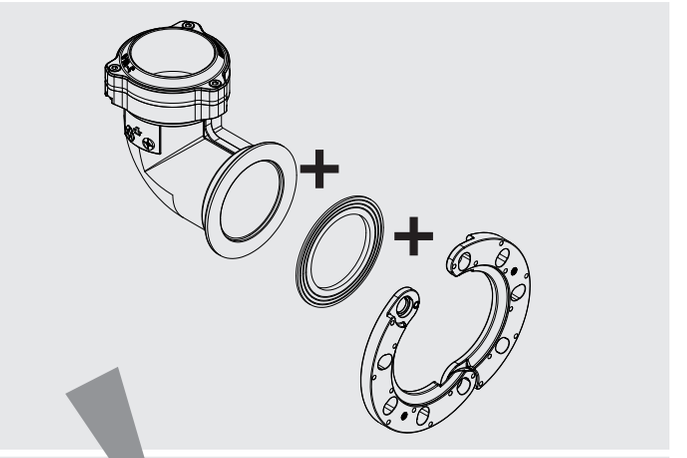


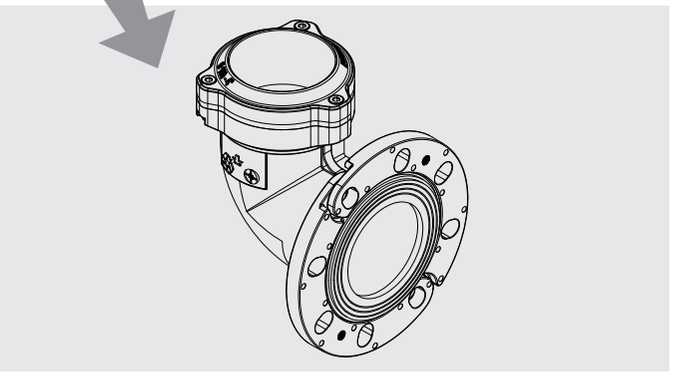
Para PPS1 CC	Par de apriete (lbf ft)	
	Min	Max
Ø 2" - 6"»	14.75	18.44

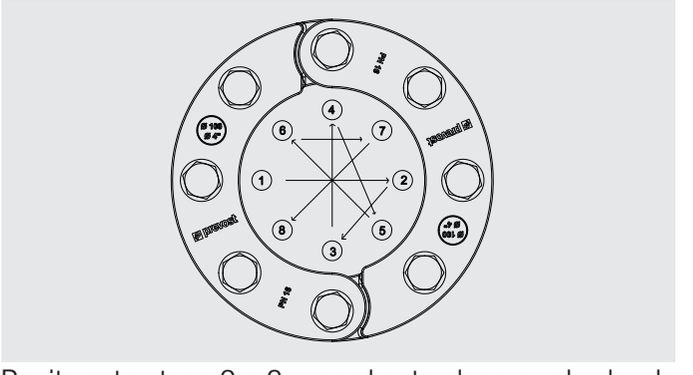
Cuidado: Para un apriete de calidad, compruebe la alineación.



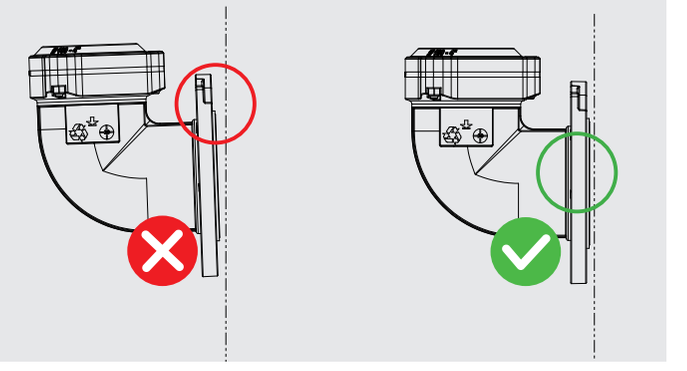
Abrazadera de conexión – PPS1 FL







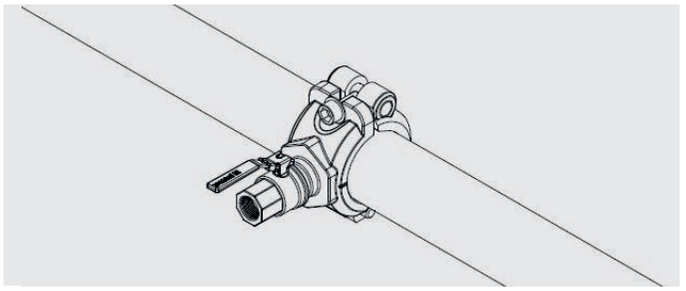
Repita esta etapa 2 o 3 veces hasta alcanzar el valor de apriete deseado (30 Nm).



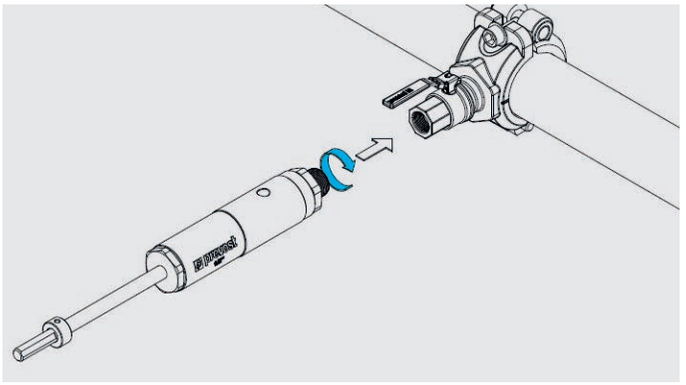
Cuidado: Para un apriete de calidad, compruebe la alineación.

6.4 HERRAMIENTA DE PERFORACIÓN BAJO PRESIÓN

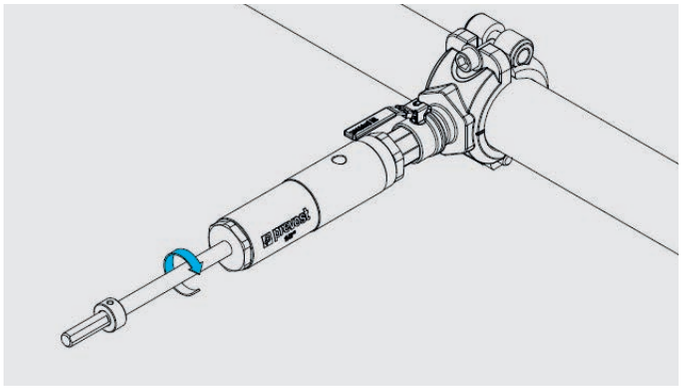
Cuidado: La red está presurizada.
Posicione la brida de derivación recta ***PPS1 BFV***.



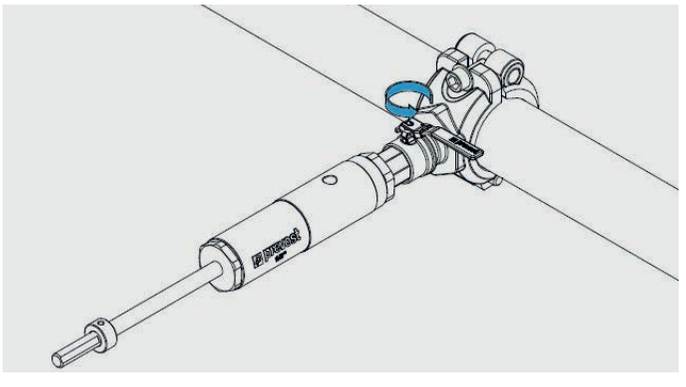
Atornille la herramienta de perforación ***PPS DRIL***.



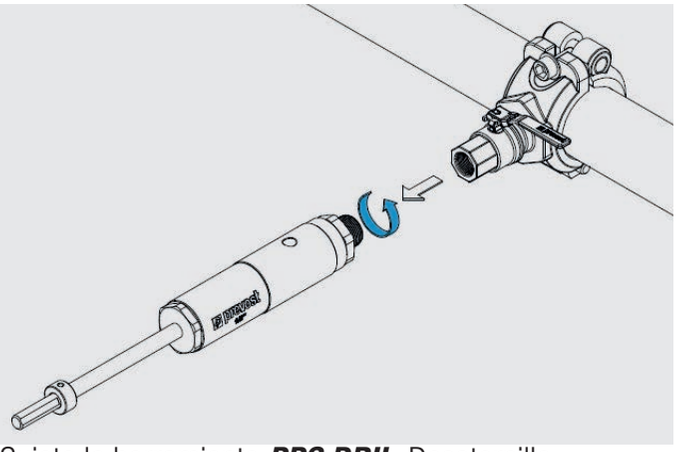
Perfore.



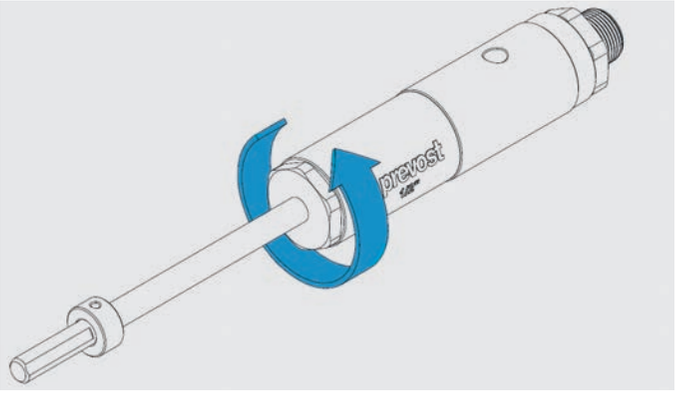
Cierre la válvula.

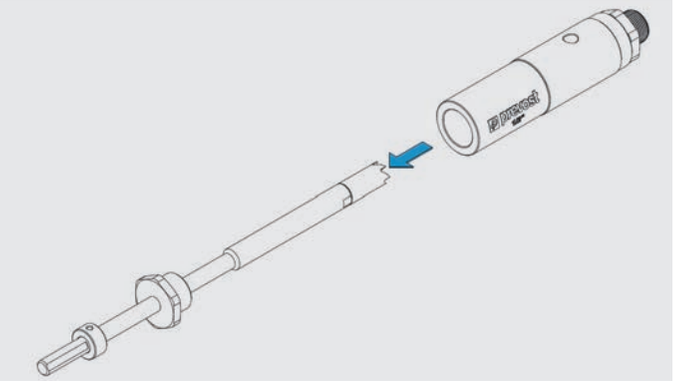


Desatornille la herramienta de perforación ***PPS DRIL***.



Sujete le herramienta ***PPS DRIL***. Desatornille.

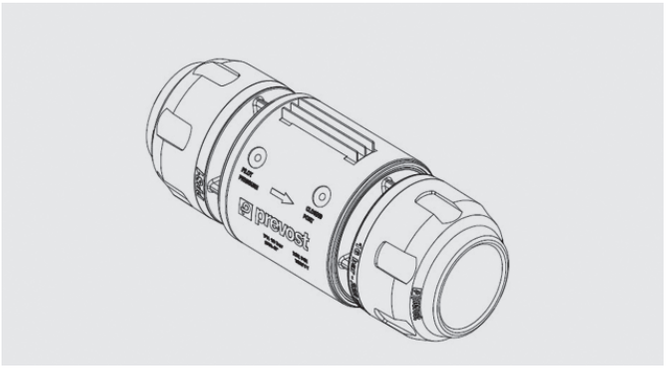




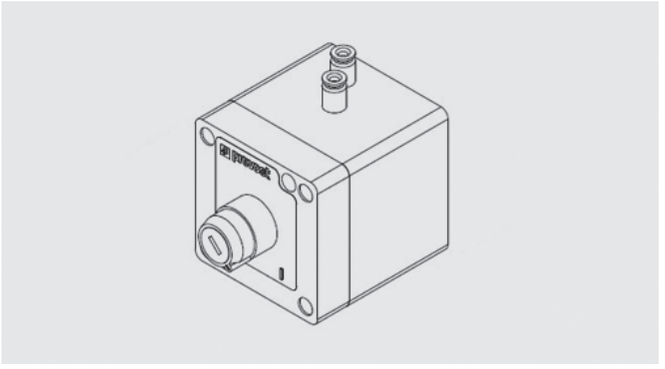
Elimine las virutas.

6.5 VÁLVULA NEUMÁTICA CON CONTROL REMOTO

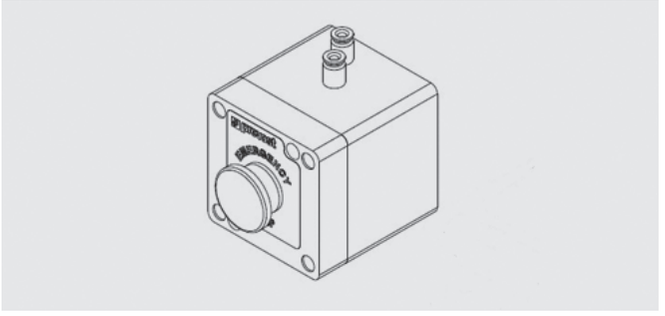
PPS1 VP



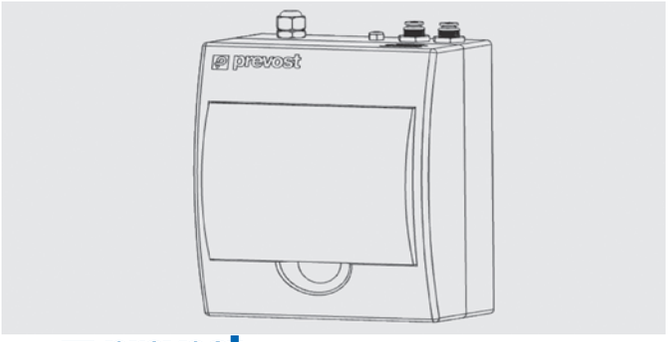
PPS RPK Control remoto con interruptor con candado.



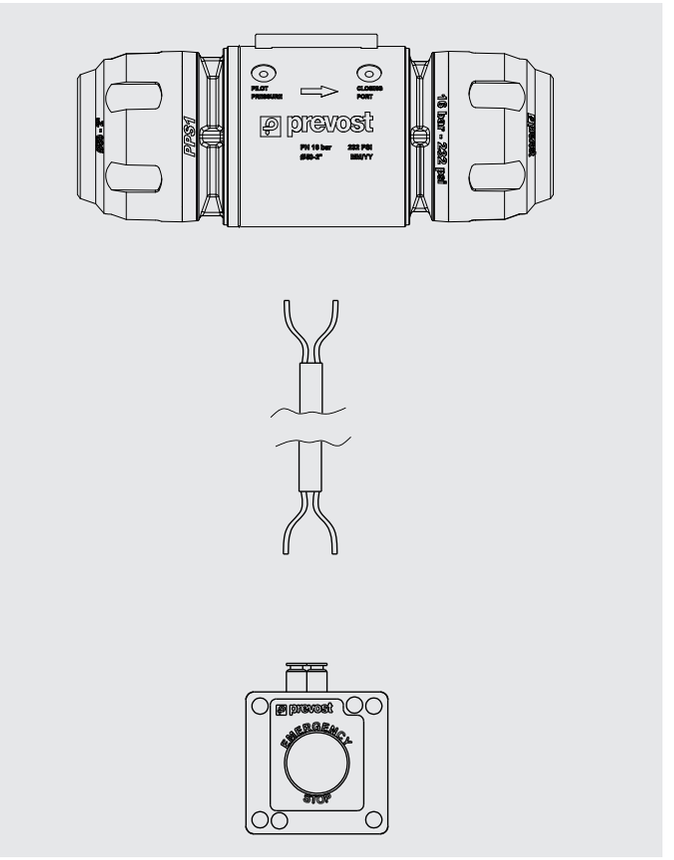
PPS RPE Control remoto con botón de parada de emergencia.



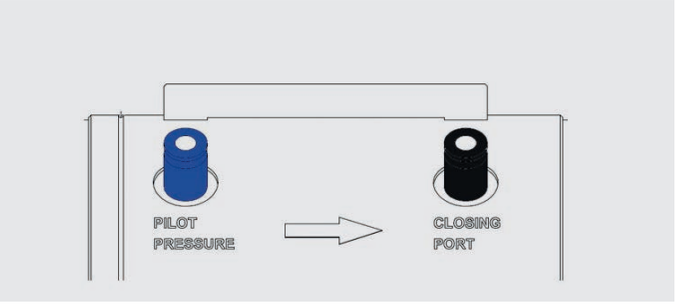
PPS RPWT Control remoto con temporizador.



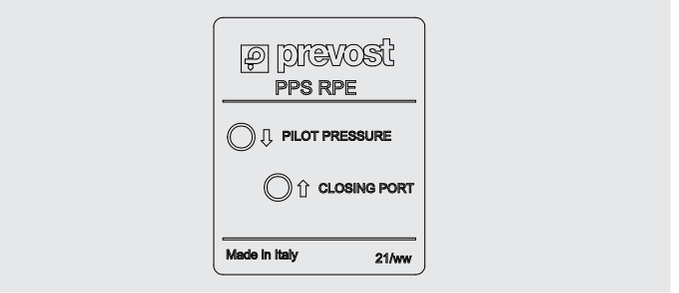
PPS MTPA270412 PA 12 multitubo 2 conductos color Ø ext. 4 mm - 12 m de longitud (Ø ext. 0.16“ - 39’ long)



Realicen la unión entre la válvula neumática y el control remoto conectando los 2 tubos PA Ø 0.15” respetando los indicadores “PILOT PRESSURE” y “CLOSING PORT” señalados en cada uno de los productos.

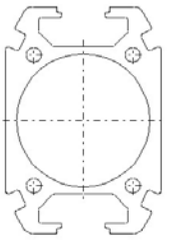


Etiqueta en la carcasa.



PREVOST PIPING SYSTEM - PPS SQ

■ INSTALLATION TOOLS REQUIRED
■ HERRAMIENTAS NECESARIAS PARA LA INSTALACIÓN



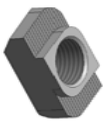
PPS SQCHPD
Pipe chamfering tool /
Herramienta de biselado para tubos

PPS CHERAP
Deburring tool /
Herramienta para besbarbar

PPS AL
Assembly gel /
Gel lubricante para operaciones de ensamblaje /

PPS SQCHPD25
Tapping flange drill bit /
Broca de perforación

PPS SQHNM
/Hammer nut for square profile /
Tuerca martillo para perfil cuadrado



PPS SQCI
Clamp for square profile/
Pinza para perfil cuadrado

PPS1 SQSH
Sliding hanger for square profile
Mosquetón deslizante para perfil cuadrado

PPS DRIL
Drilling tool under pressure/
Herramienta para taladrar bajo presión

TTW
Torque wrenches /
Llaves dinamométricas

Hex socket /
Casquillo hexagonal /

Drill /
Taladro /

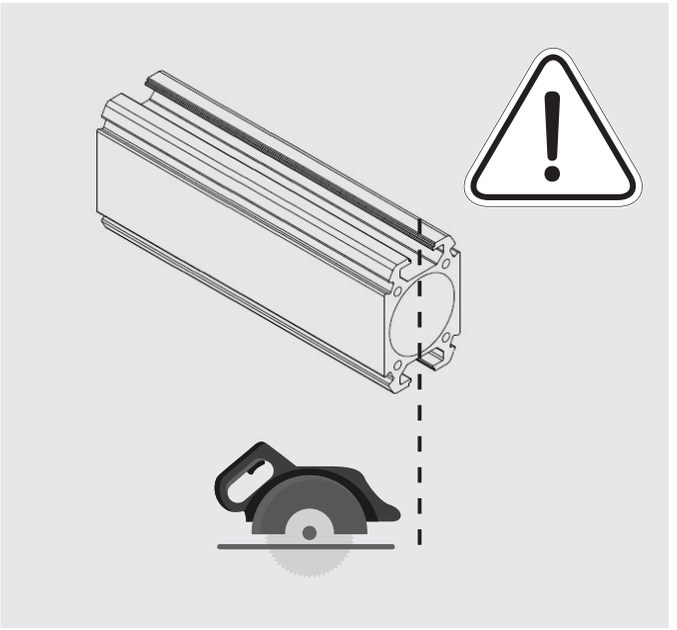
Marker /
Marcador

Tape measure /
Metro

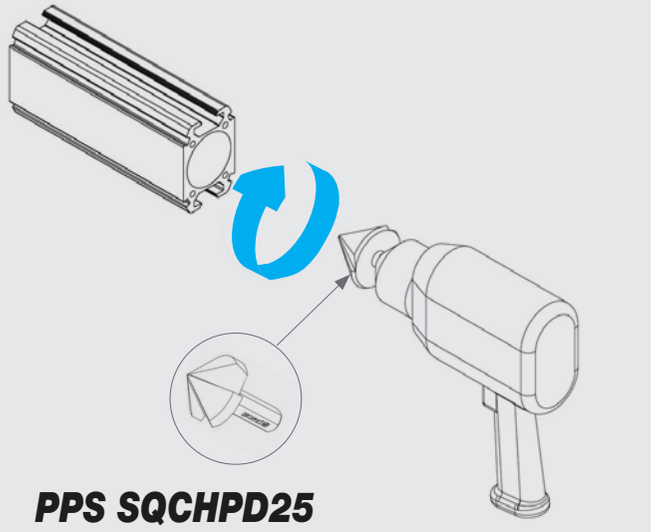
Gloves /
Guantes de protección

Protective goggles /
Gafas de protección

PPS SQ



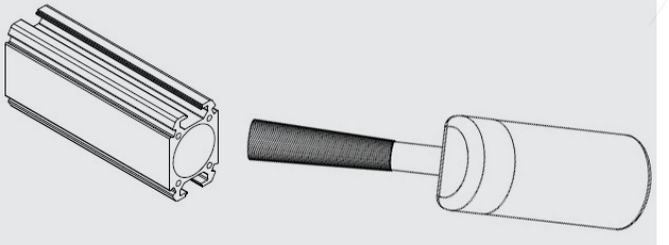
1



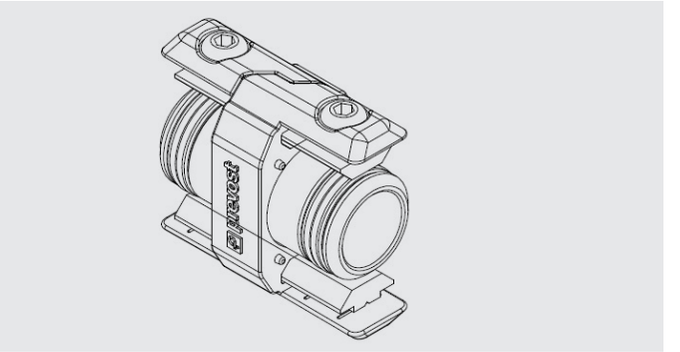
PPS SQCHPD25

2

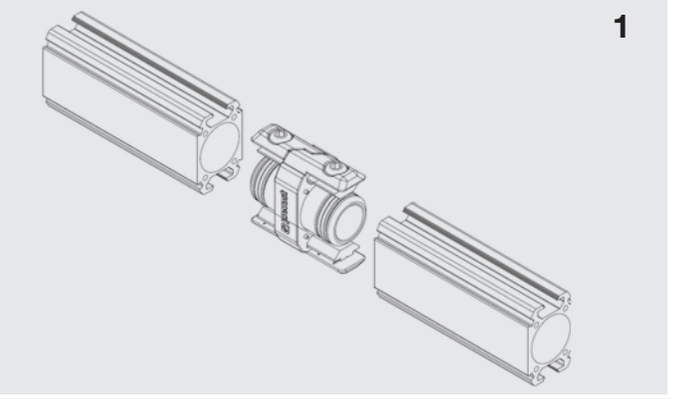
PPS AL



PPS SQUN



1



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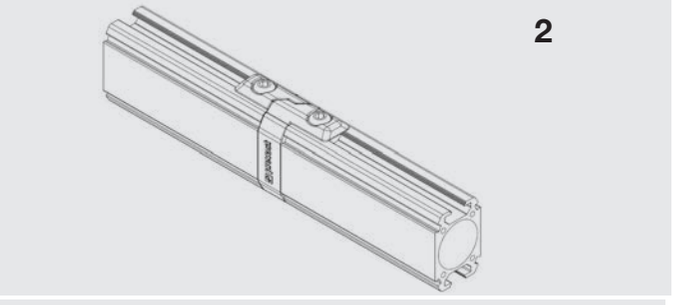
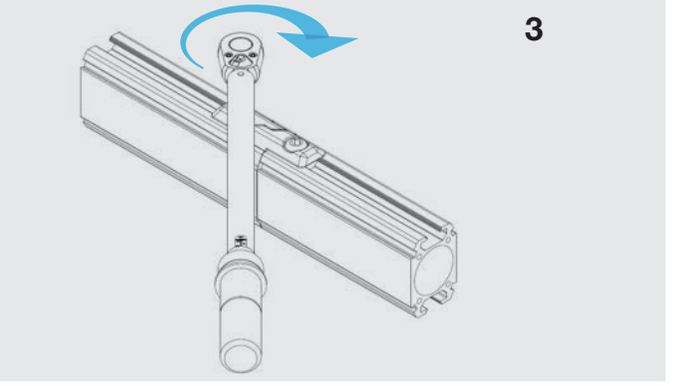
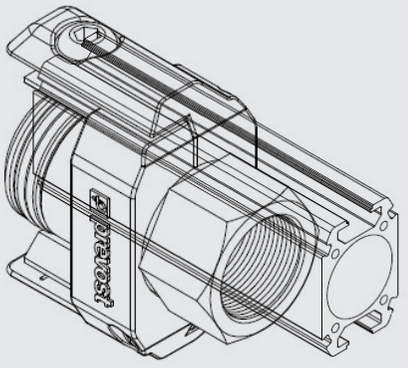


3

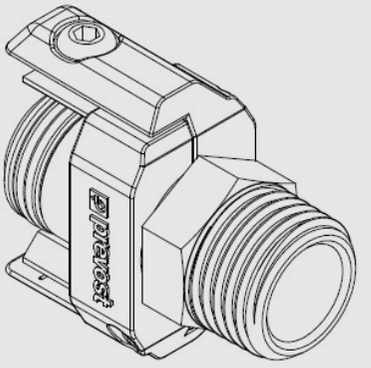


Ø	Couple de serrage / Tightening torque / Anzugsmoment / Par de apriete / Coppia di serraggio (Nm)	
Ø 25 mm	8	+/- 1
Ø 1”	5.9 ft-lb	+/- 0.74 ft-lb

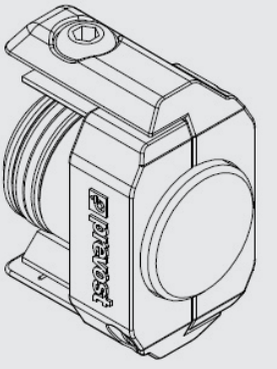
PPS SQMF - PPS SQMM - PPS SQBO



PPS SQMF

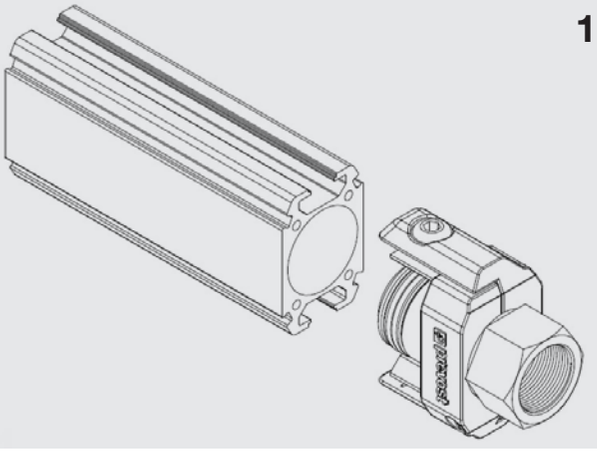


PPS SQMM



PPS SQBO

1



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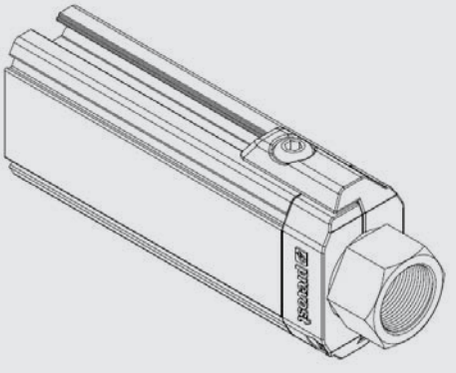
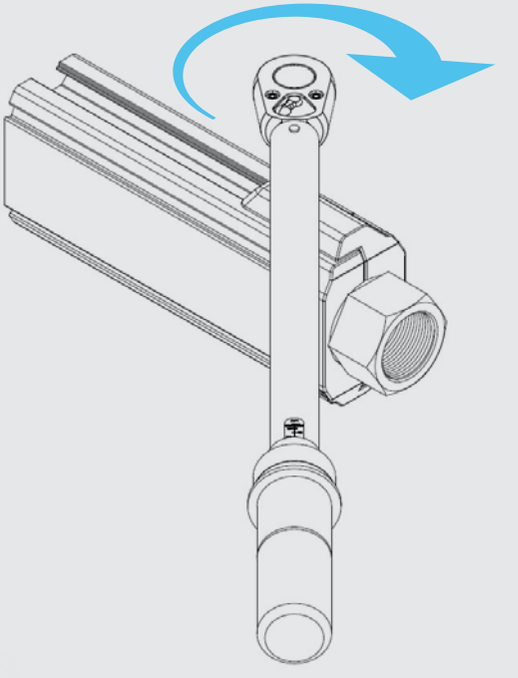


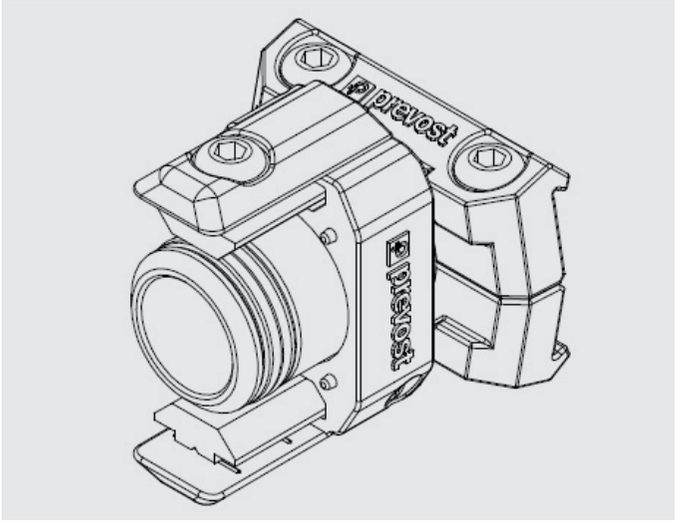
2

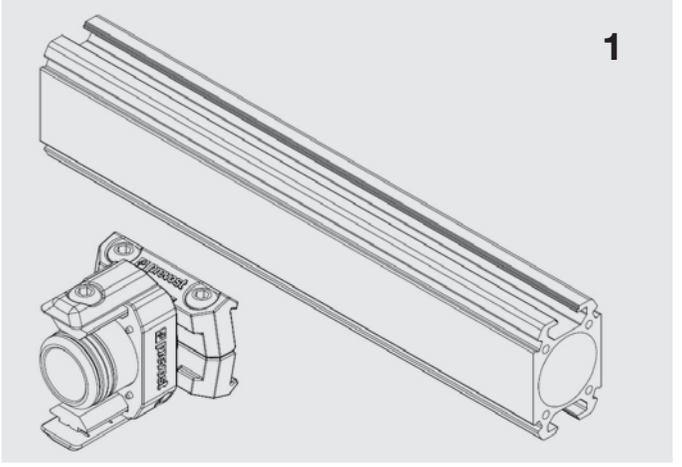
3

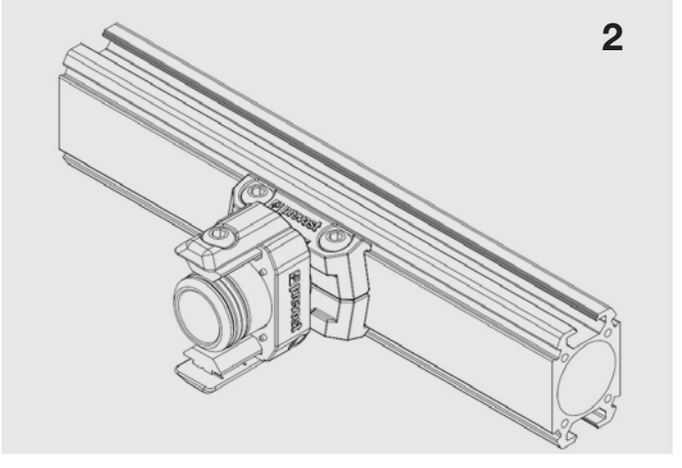


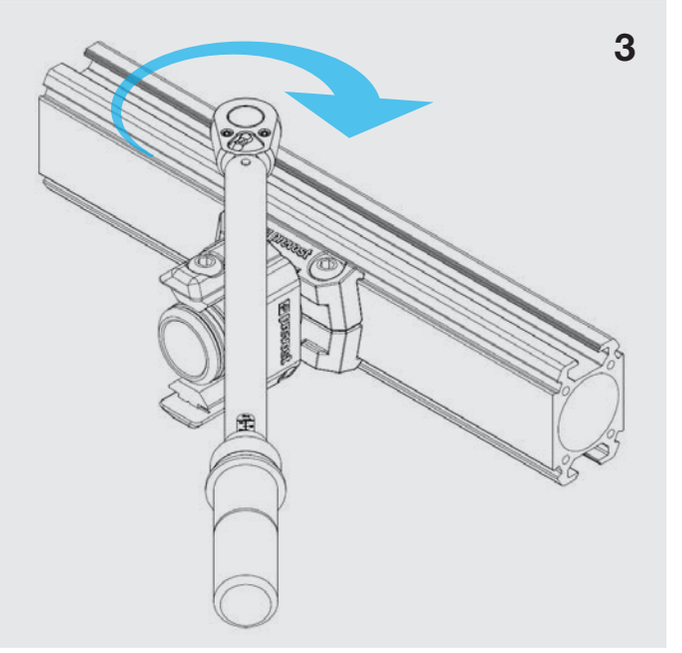
Ø	Couple de serrage / Tightening torque / Anzugsmoment / Par de apriete / Coppia di serraggio (Nm)	
Ø 25 mm	8	+/- 1
Ø 1”	5.9 ft-lb	+/- 0.74 ft-lb

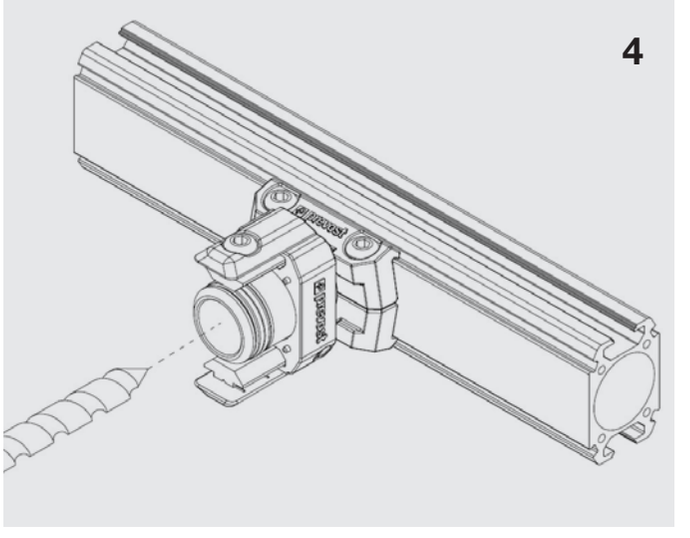
PPS SQ PPS SQBTE





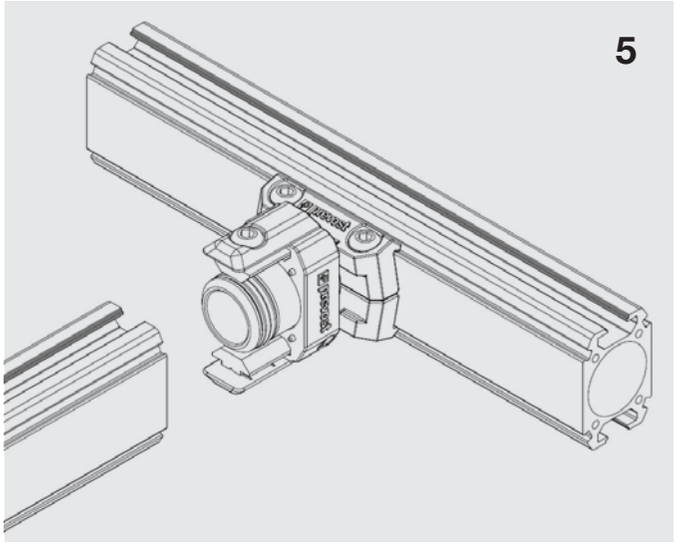


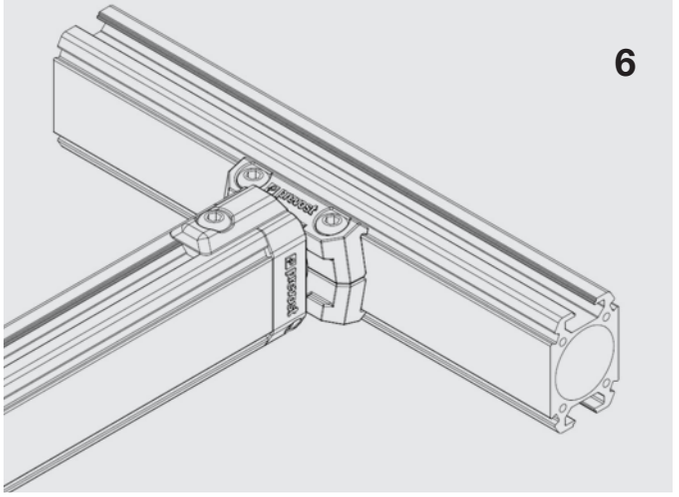


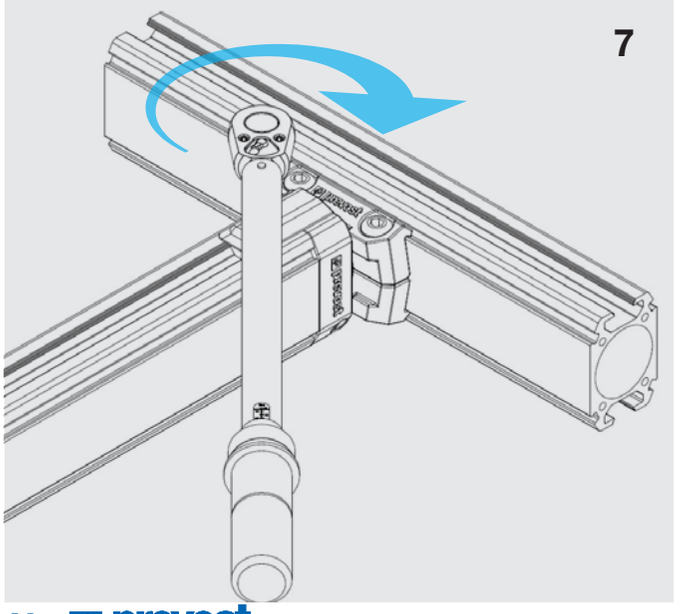


Ø	Couple de serrage / Tightening torque / Anzugsmoment / Par de apriete / Coppia di serraggio (Nm)	
Ø 25 mm	3	+/- 1
Ø 1”	2.21 ft-lb	+/- 0.74 ft-lb

PPS SQ PPS SQBTE

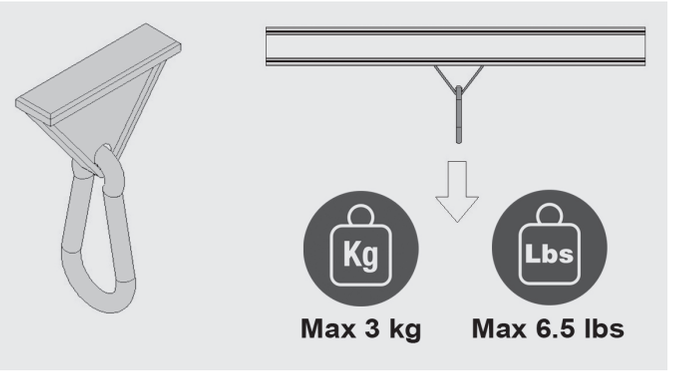




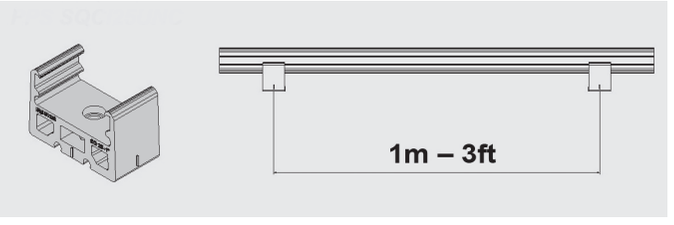


Ø	Couple de serrage / Tightening torque / Anzugsmoment / Par de apriete / Coppia di serraggio (Nm)	
Ø 25 mm	8	+/- 1
Ø 1”	5.9 ft-lb	+/- 0.74 ft-lb

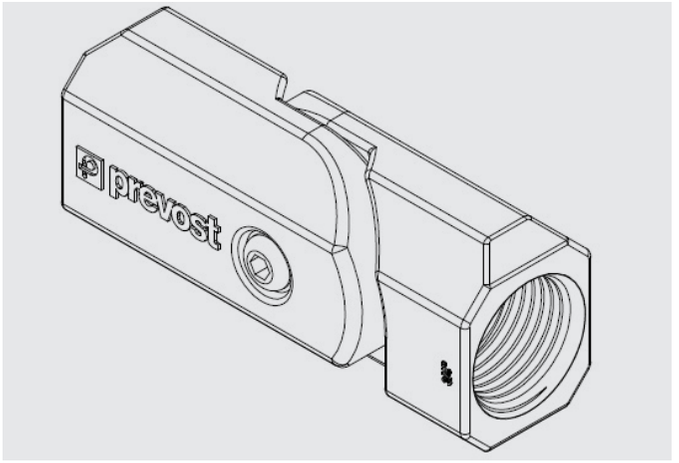
PPS SQSH25

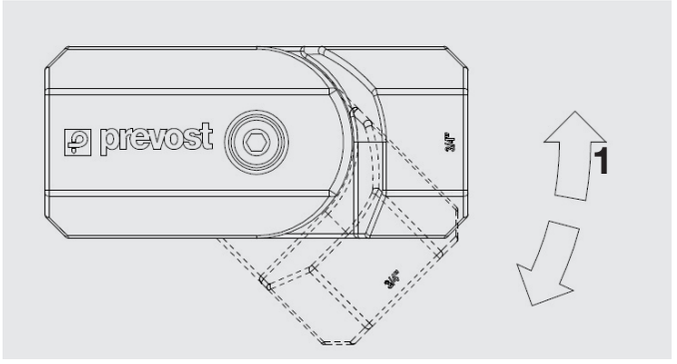


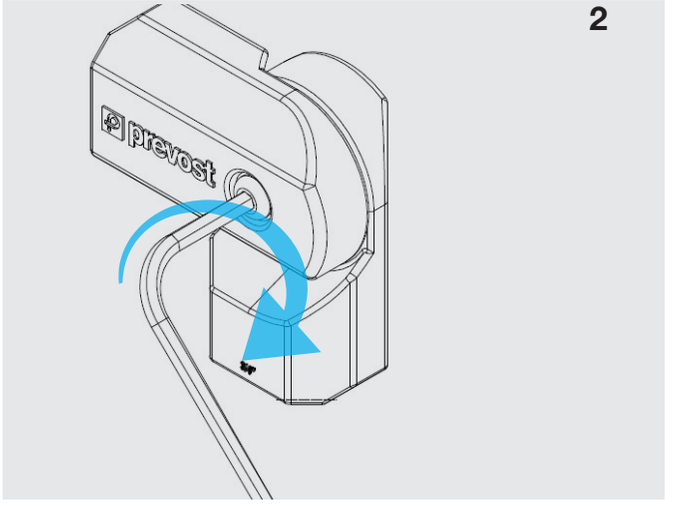
PPS SQI25 - PPS SQI25UNC



PPS JN

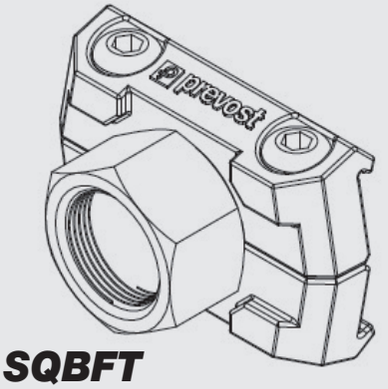




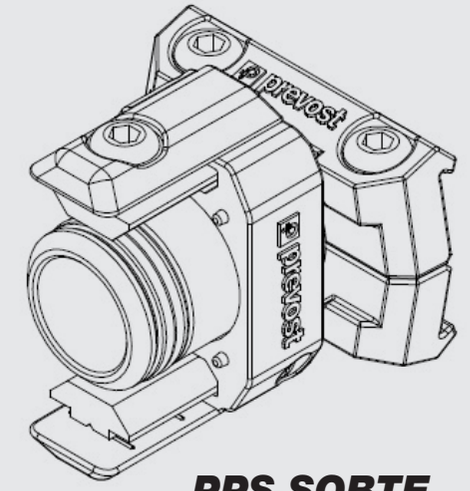


Ø	Couple de serrage / Tightening torque / Anzugsmoment / Par de apriete / Coppia di serraggio (Nm)	
Ø 25 mm	3	+/- 1
Ø 1”	2.21 ft-lb	+/- 0.74 ft-lb

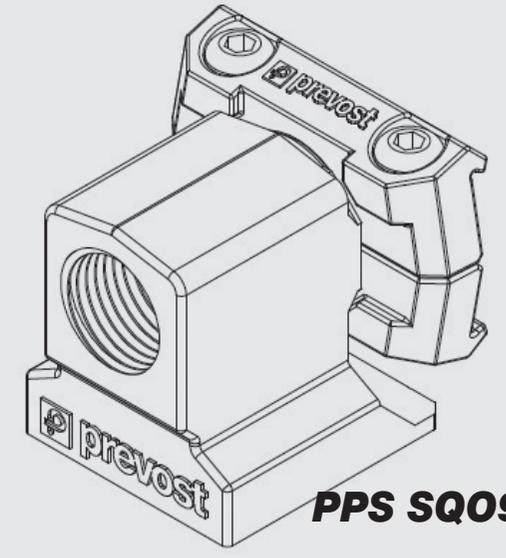
PPS SQBFT
PPS SQO9C
PPS SQBTE



PPS SQBFT



PPS SQBTE



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PPS_NT_SQ2_22

PPS SQBFT / PPS SQO9C / PPS SQBTE

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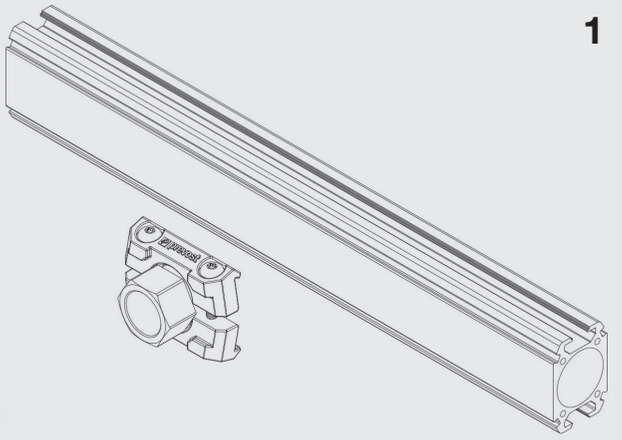

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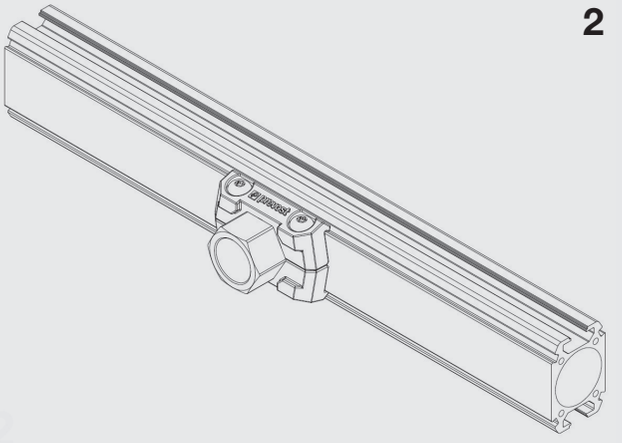

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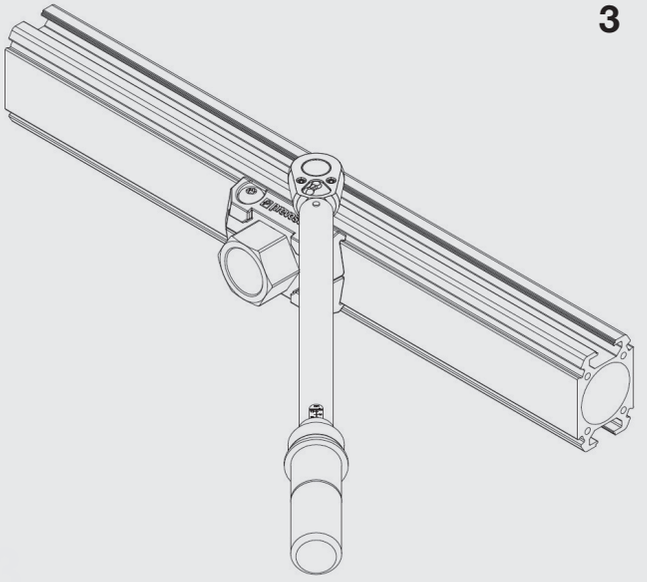

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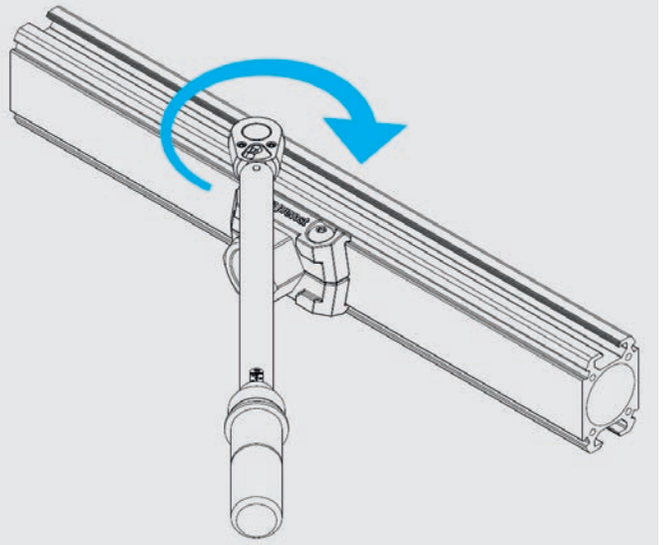

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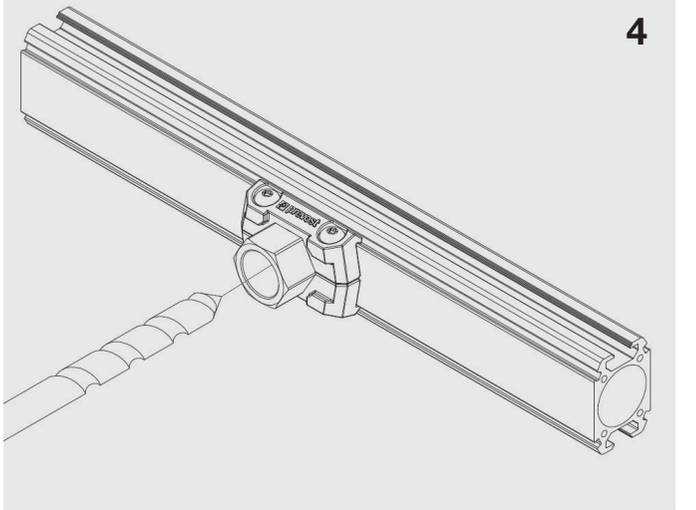
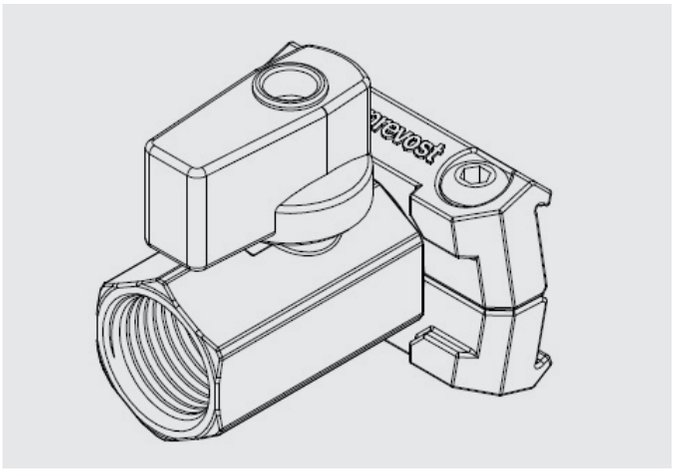
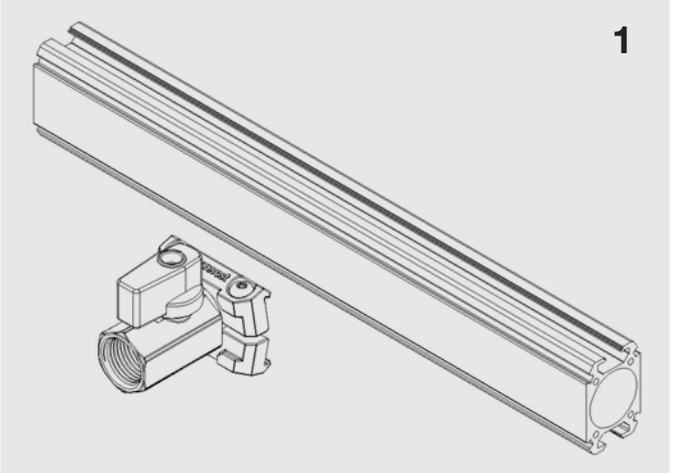
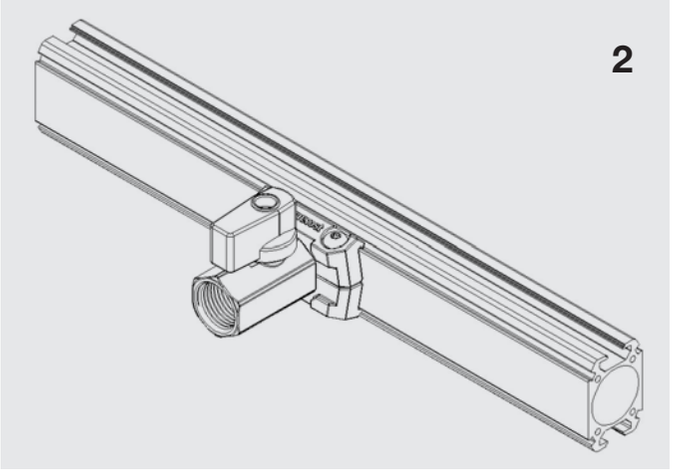


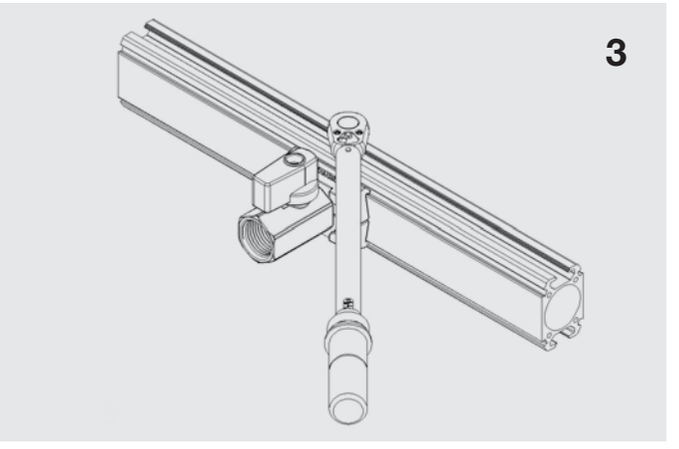
	Couple de serrage / Tightening torque / Anzugsmoment / Par de apriete / Coppia di serraggio (Nm)	
Ø	**Min**	**Max**
Ø 25 mm	3 Nm	+/- 1 Nm
Ø 1”	2.21 ft-lb	+/- 0.74 ft-lb

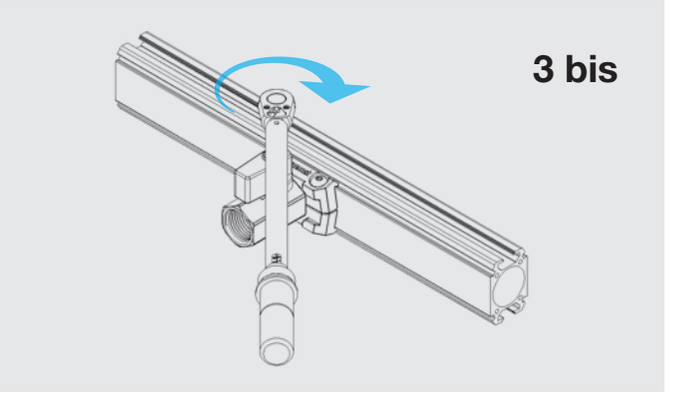
PPS SQBFV

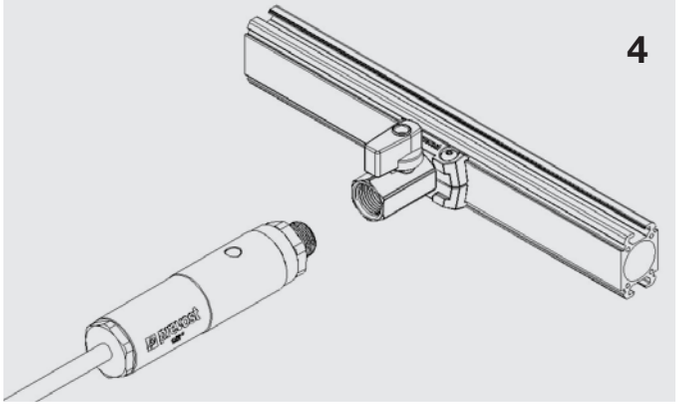












	Couple de serrage / Tightening torque / Anzugsmoment / Par de apriete / Coppia di serraggio (Nm)	
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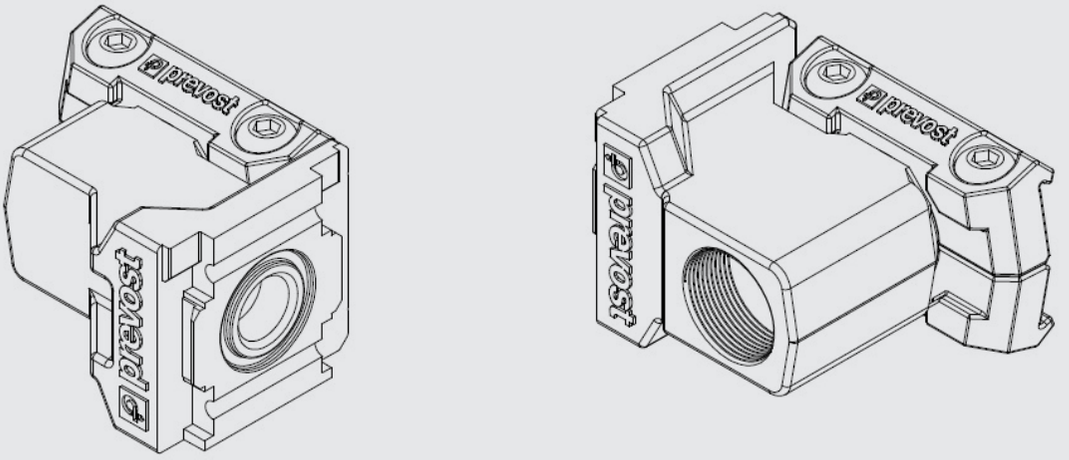
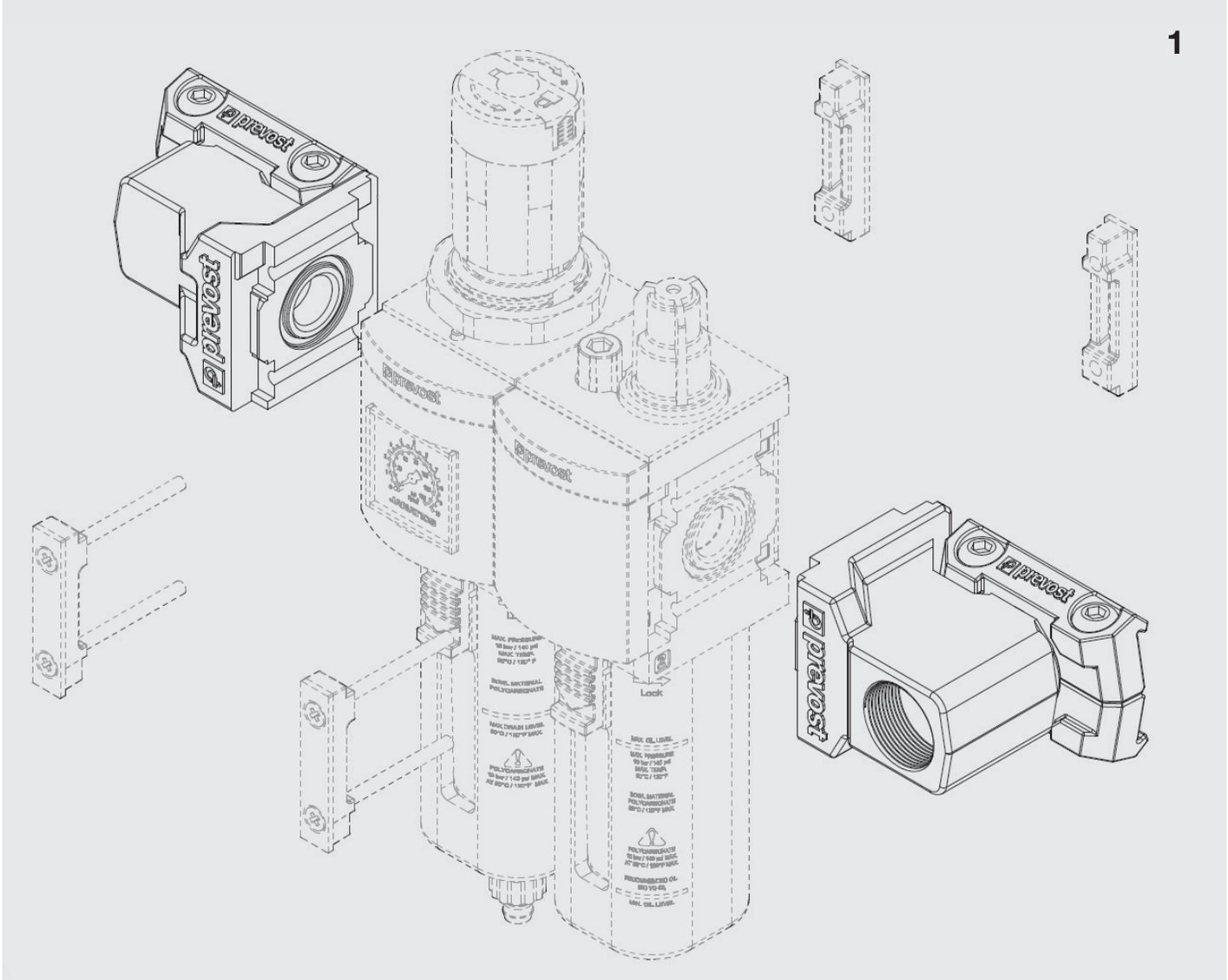
PPS SQ FRL





PPS SQ FRL

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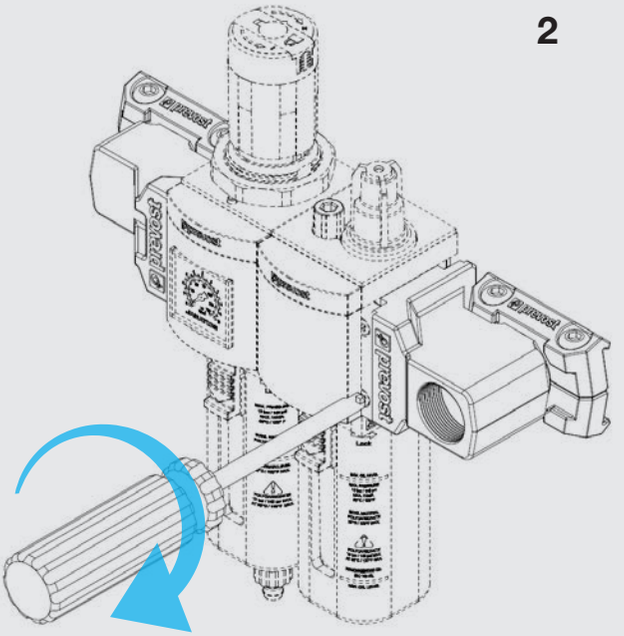

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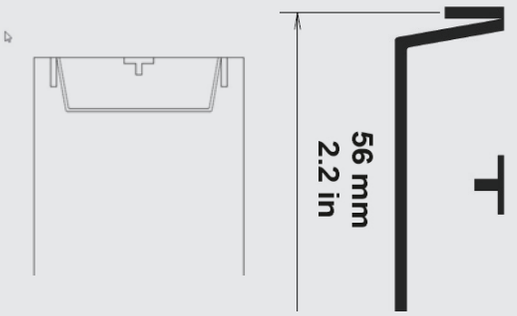

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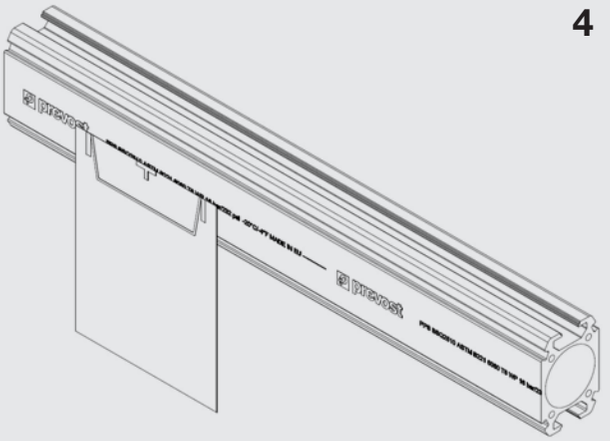

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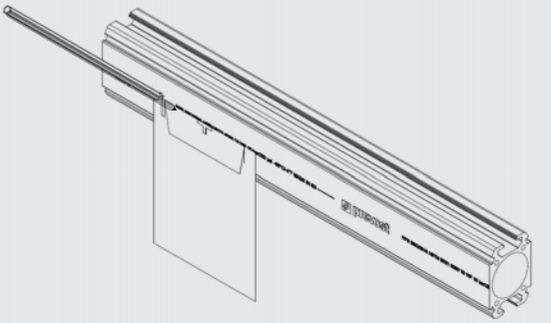

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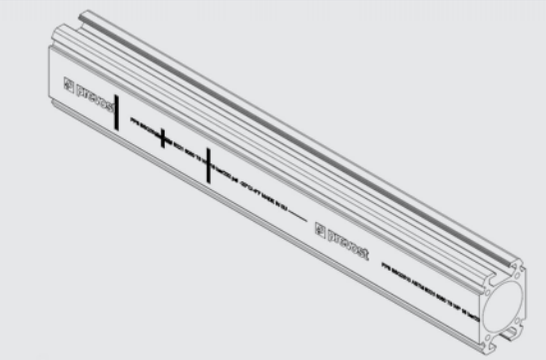

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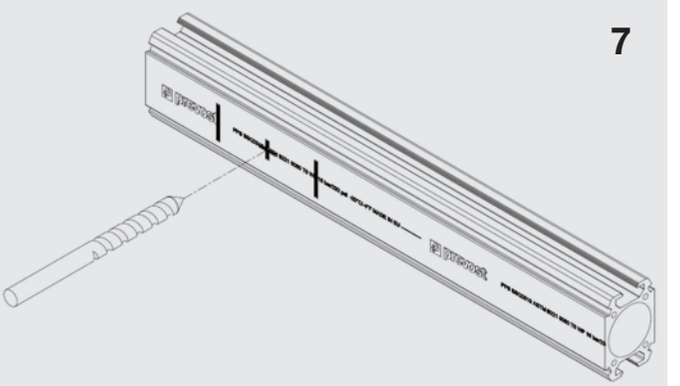

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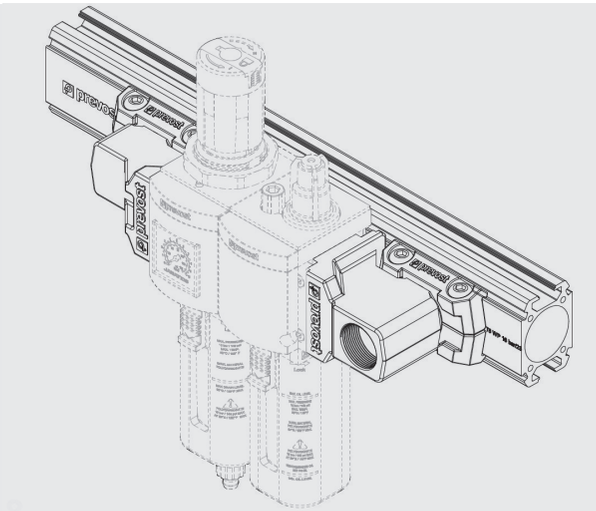

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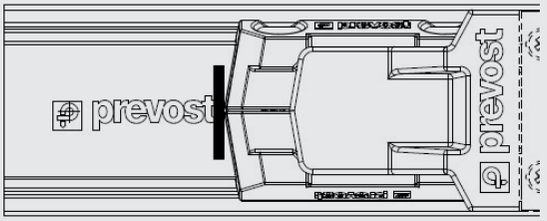

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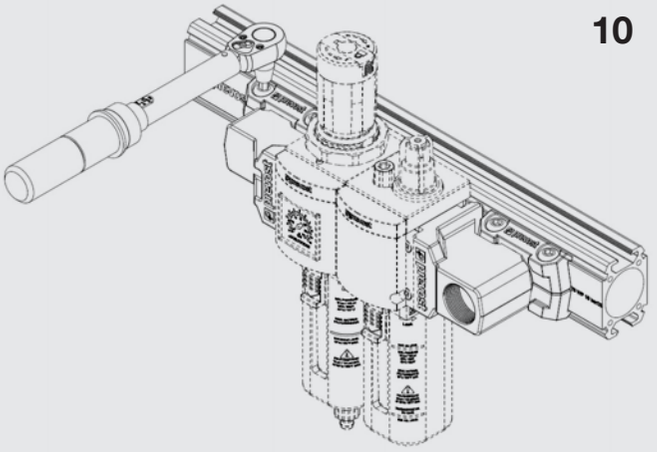

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