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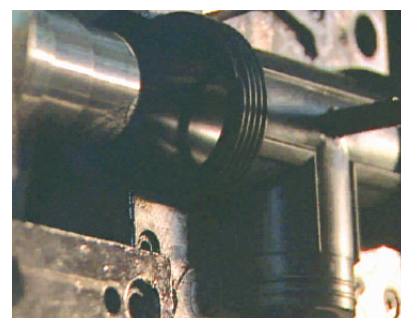
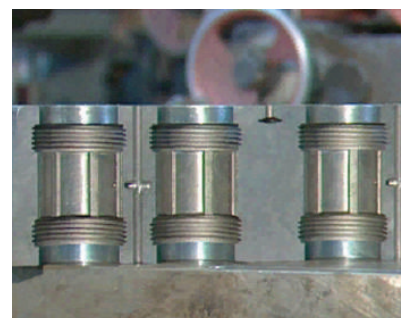


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## General Términos y definiciones

1.1. Accesorio de compresión de empalme mecánica STP (Plast)  
Accesorio en el que el empalme se realiza mediante la compresión de un aro o funda en la pared externa de la tubería con o sin elementos adicionales para su sellado y con o sin apoyo interno.

1.2. Diámetro nominal (dn)

Diámetro exterior nominal de la tubería que puede estar conectada al accesorio.

1.3. Presión nominal (PN)

Presión máxima de funcionamiento en la que un componente de un sistema de tuberías se le exige que funcione, en condiciones normales de servicio. Los accesorios Plast están pensados para una PN 16.

1.4. Presión proyectada (s)

Presión permisible para una aplicación dada.

1.5. Presión de prueba (s)

Presión para el período de pruebas y para la temperatura relevantes.

## Clasificación de accesorios PLAST

De acuerdo con el sistema de conexión

Tipo 1: accesorios de sujeción externa (accesorios de tipo compresión), que sujetan la tubería sólo en su superficie exterior, de acuerdo con la resistencia de los accesorios a las fuerzas longitudinales que se desarrollan como resultado de la presión interna como sigue:  
Clase 1: accesorios de compresión que aguantan el peso en el extremo.

### Material (PLAST)

El material del accesorio Plast que está en contacto con el agua es conforme a las normas internacionales, donde son aplicables, y no deberá contener aditivos tóxicos. El cuerpo del accesorio Plast es opaco. Cuando se mide de acuerdo con la ISO 7686, el porcentaje de luz que pasa a través de la pared del accesorio es menor o igual a 0,2%. La composición de las partes de plástico del accesorio, expuestas a radiaciones ultravioleta, incluye un estabilizador para éstas.

El accesorio Plast está compuesto de los materiales plásticos indicados en la TABLA 01.

## General Terms and definitions

1.1. STP Mechanical-joint compression fitting (Plast) Fitting in which the joint is made by the compression of a ring or sleeve on the outside wall of the pipe with or without additional sealing elements and with or without internal support

1.2. Nominal Size (dn)

Nominal outside diameter of the pipe which can be connected to the fitting

1.3. Nominal pressure (PN)

Maximum working pressure at which a piping component is required to operate under normal service conditions, Plast fittings are designed for a PN 16

1.4. Design stress (s)

Allowable stress for a given application

1.5. Tests stress (s)

Stress for the relevant test period and temperature.

## Classification of fittings PLAST

According to the connecting system

Type 1: external-grip fittings (compression-type fittings), which grip the pipe only at its outer surface, according to the resistance of the fittings to the longitudinal forces which develop as a result of the internal pressure, as follows:

Class 1: end-load-bearing compression fittings.

### Material (PLAST)

The material of the Plast fitting which is in contact with the water conforms to relevant national standards, where applicable, and shall not contain toxic additives. Plast fitting body is opaque. When measured in accordance with ISO 7686, the percentage of light which passes through the wall of the fitting is less than or equal to 0,2%. The composition of the plastics parts of the fitting exposed to ultraviolet radiations includes a UV stabilizer.

Plast fitting is made with the plastic materials shown in TABLE 01.

## Général Termes et définitions

1.1. Raccord mécanique à jonction par compresion STP (Plast)  
Raccord dans lequel la jonction est réalisée par la compresion d'une bague de joint thorique ou à lèvres sur la paroi extérieure d'un tube, avec ou sans élément d'étanchéité supplémentaire, et avec ou sans raidisseur interne.

1.2. Diamètre nominale (dn)

Diamètre extérieur nominal du tube qui peut être assemblé au raccord.

1.3. Pression nominale (PN)

Pression maximale de service à laquelle un composant de canalisation doit fonctionner dans des conditions normales de service.

1.4. Contrainte de calcul (s)

Contrainte admissible pour une application donnée

1.5. Contrainte d'essai (s)

Contrainte d'essai pour la durée et la température de l'essai concerné

## Classification des raccords Plast

Selon le système de raccordement, comme suit:

Type 1: raccords à serrage externe (raccords du type compresion), qui serrent uniquement le tube à sa surface externe, selon la résistance du raccord à des forces axiales dues à la pression interne, comme suit:

Classe 1 : raccords par compresion résistants aux effets de fond.

### Matière (PLAST)

La matière des éléments du raccord PLAST qui sont au contact de l'eau respecte les normes nationales, où elle s'applique, et ne contient pas d'additifs toxiques. Le corps du raccord est opaque. Lorsque les essais sont réalisés conformément à l'ISO 7686, le pourcentage de lumière qui traverse la paroi du raccord est inférieur ou égal à 0,2%. La composition des parties en matières plastiques du raccord exposé aux rayons ultraviolets comporte un stabilisant UV.

Le raccord Plast est composé des matières en plastique indiquées au TABLEAU 01.



## Materiales / Plástico fitting materials

### Material / Plastic fitting materials

### Matières / Matières des raccords en plastique

	Fitting material	MRS MPa	Specified design stress S MPa
PP-B	tuerca / nut cuerpo / body arandela de apriete / pressing ring	8	6,3
POM NBR	arandela de agarre /grip ring junta tórica / O-ring	10	6,3

TABLA / TABLE 01



## Roscas Plast

El tamaño y la longitud de las rosas de unión para las conexiones del sistema de suministro de agua, son conformes a la ISO 7-1. Las rosas de sujeción son conformes a la ISO 228-1.

## CARACTERÍSTICAS HIDRÁULICAS Y MECÁNICAS

Los accesorios se someten a prueba de acuerdo con las normas internacionales. Para este propósito, estando los accesorios unidos a las tuberías de polietileno conforme a la ISO 4427. La presión nominal de las tuberías usadas en la prueba es equivalente a la presión nominal de los accesorios.

NOTE 1 // 1 bar=0,1 MPa

## Accesorios de plástico Métodos de prueba y requisitos para los accesorios PLAST

### Prueba del material / valor MRS

El polipropileno copolimero (PP-B) especificado para el cuerpo del accesorio se somete a prueba de acuerdo con la ISO 9080 y la ISO 12162 para determinar el valor MRS. Verificación del funcionamiento a largo plazo.

El resultado a largo plazo del material del cuerpo del accesorio Plast, se verifica en una prueba con probeta tubular con un diámetro exterior de no menos de 50 mm fabricado según la ISO 15853 con el mismo material que el del cuerpo del accesorio. El grosor de la pared de la muestra no es menor que el de una tubería de PN6 ni mayor que el de una tubería de PN 16 del tamaño correspondiente y del mismo material.

Cuando la muestra es probada en cuanto a presión de acuerdo con el procedimiento descrito en la ISO 1167, es conforme al requisito aplicable. (TABLA 02)

## Plast threads

The size and length of jointing threads for connections with the water supply system are conform to ISO 7-1. Fastening threads are conform to ISO 228-1

## MECHANICAL AND HYDRAULIC CHARACTERISTICS

The fittings are tested according to International Standards. For this purpose, the fittings joined to polyethylene pipes conforming to ISO 4427. The nominal pressure of the pipes used in the test is equivalent to the nominal pressure of the fittings.

NOTE 1 // 1 bar=0,1 MPa

## Plastic Fittings Test methods and requirements for the PLAST fittings

### Testing of material / MRS value

The Polypropylene Copolymer (PP-B) specified for the fitting body is tested in accordance with ISO 9080 and ISO 12162 to determine the MRS value. Verification of long-term behavior

The long-term behaviour of the material of the Plast fitting body LS verified in a type test on an injection-moulded pipe specimen with an outside diameter of not less than 50 mm produced in accordance with ISO 15853 from the same material as that of the fitting body. The wall thickness of the specimen is not less than that of a PN 6 pipe and not more than that of a PN 16 pipe of the corresponding size and of the same material.

When the specimen is pressure-tested in accordance with the procedure described in ISO 1167, it conforms to the applicable requirement. (TABLE 02)

## Filetages Plast

Les dimensions et la longueur des filetages destinés au raccordement dans les cas des systèmes d'adduction d'eau sont conformes à l'ISO 7-1. Les filetages de fixation sont conformes à l'ISO 228-1.

## CARACTÉRISTIQUES MECÁNICAS ET HYDRAULIQUES

Les raccords sont soumis à essai en accord à la Norme internationale. A cet effet, les raccords sont assemblés aux tubes en polyéthylène conformément à l'ISO 4427. La pression nominale des tubes utilisés pour les essais est équivalente à la pression nominale des raccords.

NOTE 1 // 1 bar=0,1 MPa

## Raccords en plastique Méthode d'essai et exigences de raccords Plast

### Essai de la matière / valeur de MRS

Le polypropylène copolymère (PP-B) spécifié pour le corps du raccord est déterminé conformément à l'ISO 9080 et à l'ISO 12162, afin de calculer la valeur de MRS.

Le comportement de longue durée de la matière du corps du raccord est vérifié par un essai de type dur des éprouvettes tubulaires moulées par injection, d'un diamètre extérieur supérieur ou égal à 50mm, fabriquées conformément à l'ISO 15853, en une même matière que celle du corps du raccord. L'épaisseur de paroi de l'éprouvette n'est pas inférieure à celle d'un tube de PN 6, ni supérieure à celle d'un tube de PN 16, de la dimension correspondante et en une même matière.

Si l'éprouvette est soumise à un essai de pression conformément au mode opératoire décrit dans l'ISO 1167, les exigences données sont satisfaites. (TABLEAU 02).



## Requisitos de rendimiento para los accesorios Plast Performance requeriments for Plast fittings Exigences de performances des raccords Plast

Prueba del material		Testing of material		Essai de la matière		
Fitting material	Test temperature °C	Test temperature °F	Test duration h	Induced MPa	PSI	Requirement
PP-B	80°	176°	8760	3,2	46	No debe presentar fallos
	95°	203°	1000	2,6	37	No failures during test
	110°	230°	8760	1,1	16	

\*Probado con aire / Tested with air plast

TABLA / TABLE 02



Requisitos de rendimiento para los accesorios de compresión Plast / Prueba del accesorio  
Performance requirements for Plast compression fittings / Testing of fitting  
Exigences de performance des raccords à compression Plast Essai du raccord

Fitting material	Test temp. °C	Test temp. °F	Test durat. h	Test press. bar	Requirement
PP-B	20°	68°	1 h	40 up to ø63 25 from ø75 mm 2,5 x PN	No deben presentarse fugas ni roturas durante la prueba No failures (leakage, fractures, cracking) in joint area of fitting or pipe during either test period
	95°	203°	1000 h	6,4 up to ø63 4 from ø75 mm 6,4 x PN	

TABLA / TABLE 03



### PRUEBAS DE LOS ACCESORIOS

#### Resistencia a la presión interna

Cuando el cuerpo del accesorio de inyectado Plast es sometido a prueba de acuerdo con la ISO 12092 usando los parámetros de prueba dados en la tabla 03, es conforme a los requisitos aplicables dados en dicha tabla.

NOTA // Los requisitos de la prueba están relacionados con la PN del accesorio

### PRUEBA DE CONJUNTO

#### Muestras de prueba

Cada muestra de prueba incluye un accesorio Plast ensamblado con un PE (\*) PN 16.

#### ISO 3503 ESTANQUEIDAD BAJO PRESIÓN INTERNA CUANDO SE SOMETE EL TUBO A CURVATURA

Cuando un conjunto de un accesorio recto (un manguito) se somete a la prueba acuerdo con la ISO 3503, el ensamblaje es conforme a los requisitos siguientes (tabla 04).

### TESTING OF FITTINGS

#### Resistance to internal pressure

When a Plast injection-moulded fitting body is tested in accordance with ISO 12092 using the test parameters given in table A, it conforms to the applicable requirements given in such table.

NOTE // The test requirements are related to the PN of the fitting.

### ASSEMBLY TEST

#### Test specimens

Each test specimen comprises a Plast fitting assembled with a PE (\*) PN 16.

#### ISO 3503 LEAKTIGHTNESS UNDER INTERNAL PRESSURE WHEN SUBJECTED TO BENDING

When a straight Plast fitting (coupling) assembly is tested in accordance with ISO 3503, the assembly conforms to the following requirement (Table 4).

### ESSAI DES RACCORDS

#### Résistance à la pression interne

Lorsque le corps d'un raccord moulé par injection Plast est soumis à essai conformément à l'ISO 12092 avec les paramètres d'essai indiqués dans le tableau 3, il répond aux exigences applicables données dans ce tableau.

NOTE // les exigences d'essai sont liées à la PN du raccord.

### ESSAIS D'ASSEMBLAGE

#### Eprouvettes

Chaque éprouvette comprend un raccord assemblé au tube en PE (\*) PN 16.

#### ISO 3503 ÉTANCHÉITÉ À LA PRESSION INTERNE QUAND L'ASSEMBLAGE EST SOUMIS À UNE COURBURE

Quand un raccord droit (manchon) est soumis à essai conformément à l'ISO 3503, l'assemblage répond aux exigences données dans le tableau 4.

Requisitos de rendimiento para ensamblajes de accesorios de compresión Plast Estanqueidad sobre el goteo bajo presión interna cuando se somete a curvatura

Performance requirements for Plast compression fitting assemblies  
Leaktighness when subjected to bending  
Exigences de performances d'assemblage des raccords à compression Plast  
Étanchéité lorsqu'ils sont soumis à une courbure

Pipe material	Test temp. °C	Test temp. °F	Test durat. h	Test stress, $\sigma_T$ MPa	Test Pressure, $\sigma_S$ bar	Requirement
PE 63	20°±5	68°	1 h	9,0	1,8xPN	No deben presentarse fugas ni roturas durante la prueba No failures (leakage, fractures, cracking) in joint area of fitting or pipe during either test period
PE 80	20°±5	68°	1 h	11,4	1,8xPN	
PE 100	20°±5	68°	1 h	14,4	1,8xPN	

TABLA / TABLE 04





La presión de la prueba  $r$  se calculará, en bars, con la ecuación:

$$\rho_T = \frac{\sigma_T}{\sigma_S} \times PN$$

en la que  $st$  es la presión aplicable en la prueba dada en la tabla C (MPa)

$ss$  es la presión proyectada de acuerdo con la ISO 4427

PN es la presión nominal (16 bars)

NOTA 1 // 1 bar = 0,1 MPa

NOTA 2 // Para diámetros mayores de 63 mm, el uso de equipo especial podría ser necesario para crear el radio de curvatura requerido para la tubería de la prueba.

**ISO 3501  
RESISTENCIA A LA TRACCIÓN**

Cuando un ensamblaje de un accesorio Plast está sometido a prueba de acuerdo con la ISO 3501, el ensamblaje es conforme a los requisitos dados en la tabla C, calculando en newtons la fuerza de la prueba (FP).

$$(FT = 1,5 st Tten (dn-en))$$

Requisitos de rendimiento para conjuntos de accesorios de compresión Plast / Prueba de arrancamiento  
Performance requirements for Plast compressions fittings assemblies / Pull-out test  
Exigences de performances d'assemblage des raccords à compression Plast  
Essai de résistance à l'arrachement

Pipe material	Test temp.		Test durat. h	Test stress, $\sigma_T$ MPa	Requirement
	°C	°F			
PE 63	20±5	68°	1 h	4,5	El desplazamiento de la tubería no debe afectar a la estanqueidad
PE 80	20±5	68°	1 h	5,7	Displacement of pipe during test does not affect leaktighness of joint
PE 100	20±5	68°	1 h	7,2	

TABLA / TABLE 05

$a$  / Estas son tensiones longitudinales y sus valores son por tanto la mitad de aquellos de las tensiones circunferenciales dadas como tensiones de prueba en la tabla 05.

**ISO 3459  
ESTANQUEIDAD BAJO VACIO INTERIOR**

Cuando un conjunto de accesorio Plast es sometido a prueba a dos presiones de acuerdo con la ISO 3459, el ensamblaje es conforme al requisito de rendimiento. (Tabla 06)

The test pressure  $r$  shall be calculated, in bars, form the equation:

$$\rho_T = \frac{\sigma_T}{\sigma_S} \times PN$$

where  $st$  is the applicable test stress given in the table (MPa);

$ss$  is the design stress in accordance with ISO 4427

PN is the nominal pressure (16 bars)

NOTE 1 // 1 bar = 0,1 MPa

NOTE 2 // For diameters larger than 63 mm, the use of special equipment might be necessary to create the bending radius required for the pipe under test.

**ISO 3501  
RESISTANCE TO PULL-OUT**

When a Plast fitting assembly is tested in accordance whit ISO 3501, the assembly conforms to the requirements given in the table C, the test force FT being calculated, in newtons.

$$(FT = 1,5 st Tten (dn-en))$$

La pression d'essai en bars, sera calculée à l'aide de la formule suivante:

$$\rho_T = \frac{\sigma_T}{\sigma_S} \times PN$$

Où  $st$  est la contrainte d'essai applicable donnée dans le tableau 4 (MPa)

$ss$  est la contrainte de calcul conforme à l'ISO 4427

PN est la pression nominale (16 bars)

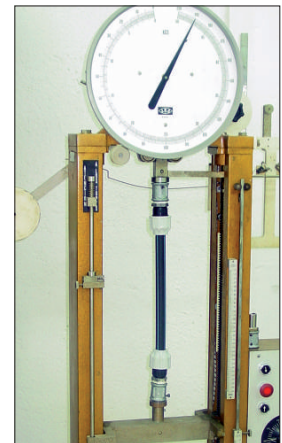
NOTE 1 // 1 bar=0,1 MPa

NOTE 2 // Pour les diamètres supérieurs à 63mm, il peut être nécessaire d'utiliser un équipement spécial pour créer le rayon de courbure requis sur le tube soumis à essai.

**ISO 3501  
RÉSISTANCE À L'ARRACHEMENT**

Lorsqu'un raccord assemblé est soumis à essai conformément à l'ISO 3501, l'assemblage est conforme aux exigences données dans le tableau 5, la force d'essai Ft est calculée en newtons.

$$(FT = 1,5 st Tten (dn-en))$$



$a$  / These are longitudinal stresses, and their values are therefore half those of the circumferential stresses given as test stresses in table 05.

**ISO 3459  
LEAKTIGHTNESS UNDER INTERNAL VACUUM**

When a Plast fitting assembly is tested at two pressures in accordance with ISO 3459, the assembly conforms to the performance requirement. (Table 06)

$a$  / Il s'agit de contraintes axiales ; leurs valeurs sont donc égales à la moitié des valeurs des contraintes circonférentielles données dans le tableau 05 en tant que contraintes d'essai.

**ISO 3459  
ÉTANCHÉITÉ SOUS VIDE INTERNE**

Lorsqu'un raccord assemblé Plast est soumis à essai à deux pressions conformément à l'ISO 3459, l'assemblage est conforme aux exigences de per-formance. (Tableau 06)

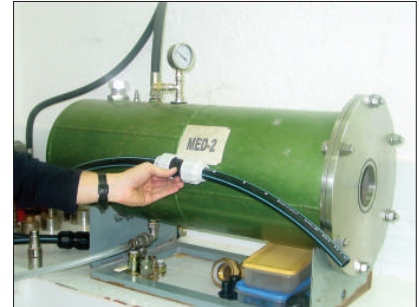
**Requisitos de rendimiento para ensamblajes de accesorios de compresión Plast. Hermetismo contra el goteo con vacío.**

**Performance requirements for Plast compressions fittings assemblies. Leaktighness under vacuum.**

**Exigences de performances d'assemblage des raccords à compression Plast. Étanchéité sous vide.**

Pipe material	Test temp. °C	°F	Test durat. (two periods)	Test Pressure bar	Requirement
PE 63			1 h	0,1+0,05	No deben presentarse fugas
PE 80	20±5	68°	seguido de		
PE 100			1 h	0,8+0,0	No leakage during either test period

TABLA / TABLE 06



### ISO 1167

#### PRUEBA DE PRESIÓN A LARGO PLAZO PARA ESTÁNQUEIDAD DE ACCESORIOS

Cuando un conjunto compuesto por al menos un accesorio Plast con una o más tuberías, unidas a él, es sometido a prueba de acuerdo con la ISO 1167, el conjunto es conforme a los requisitos según la tabla 07.

Cálculo de la presión que se debe usar para las pruebas de estanqueidad a largo plazo. Estimación de vida: 50 años

La prueba de estanqueidad a largo plazo para los empalmes mecánicos con accesorios hechos de materiales de plástico se basa en el principio de que estos empalmes tendrán que mantenerse herméticos durante toda la vida de servicio del ensamblaje, es decir, 50 años. Esto requiere que cualquier deformación que ocurra en la zona del empalme debido al deslizamiento no cause ningún goteo.

Por lo tanto, la prueba llevada a cabo en condiciones tales que la deformación por deslizamiento prevista después de 50 años se alcanza en 1000 h. La presión en el material del accesorio correspondiente a la presión nominal en el sistema en 50 años se puede determinar mediante los diagramas sincrónicos de la tensión / presión para el material en la temperatura de funcionamiento.\*

**Requisitos de rendimiento para ensamblajes de accesorios de compresión Plast. Prueba de estanqueidad a largo plazo.**

### ISO 1167

#### LONG-TERM PRESSURE TEST FOR LEAKTIGHTNESS OF ASSEMBLED JOINTS

When an assembly comprising at least one Plast fitting with one or more pipe(s) jointed to it is tested in accordance with ISO 1167, the joint conforms to the needed requirement as it is shown (Table 07).

Calculation of pressure to be used for long-term leaktighness testing. Estimatem life: 50 years

The long-term leaktighness test for mechanical joints with fittings made of plastics materials is based on the principle that these joints will have to remain watertight for the whole service life of the assembly, i.e. 50 years. This requires that any deformation occurring in the joint area due to creep does not cause any leakage.

The test is therefore carried out under conditions such that the expected creep deformation after 50 years is reached in 1000h. The strain in the fitting material corresponding to the nominal stress in the system over 50 years can be determined from isochronous stress/strain diagrams for the material at the service temperatura.\*

**Performance requirements for Plast compressions fittings assemblies. Leaktighness of assembled joints.**

### ISO 1167

#### ESSAI DE PRESSION DE LONGUE DURÉE POUR L'ÉTANCHÉITÉ DES ASSEMBLAGES

Lorsqu'une éprouvette comportant au moins un raccord Plast assemblée à un ou des tubes est soumise à essai conformément à l'ISO 1167, l'assemblage est conforme aux exigences données dans le tableau 07.

Calcul de la pression à utiliser pour les essais d'étanchéité de longue durée.

Estimation de vie: 50 ans

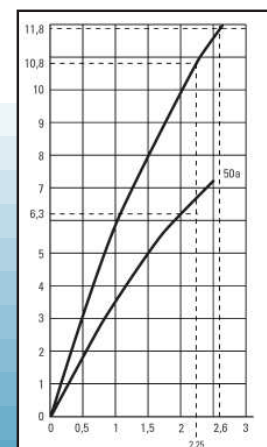
Les essais d'étanchéité de longue durée des assemblages mécaniques des raccords en matières plastiques sont fondés sur le principe que ces jonctions doivent être étanches à l'eau pendant toute la durée de service de l'assemblage, c'est-à-dire 50 ans. Cela implique que les déformations dues au fluage dans la zone de jonction ne provoquent aucune fuite.

Les essais sont donc effectués dans des conditions telles que la déformation due au fluage, prévue au bout de 50 ans, soit atteinte en 1000 h. La déformation de la matière du raccord, correspondant à la contrainte nominale dans le système pendant 50 ans, peut être déterminée à l'aide de diagrammes isochrones contrainte/ déformation de la matière à la température de service.\*

**Exigences de performances des raccords à compression Plast. Étanchéité des assemblages.**

Fitting material	Pipe material	Test durat. (two periods)	Test temp. °C	°F	Test pressure bar	Requirement
PP-B	PE 63	1000 h	20°	68°	1,2 x PN	No deben presentarse fugas ni grietas en la tubería durante los periodos de prueba
	PE 80					
	PE 100	1000 h	40°	104°	0,8 x PN	No leakage from joint or cracking of pipe during either test period

TABLA / TABLE 07



\*Presión inducida en la pared de la tubería (MPa) / Presión, E (%)

\*Induced pressure on the pipe wall (MPa) / Pressure, E (%)

\*Pression induite à la paroi du tuyau (MPa) / Pression, E (%)



## APLICACIONES • APPLICATION FIELDS • DOMAINES D'APPLICATION

Acometidas de agua potable, tomas de abonado, instalaciones de riego, jardinería, agricultura, depuración de aguas, minería, piscinas, industria, telecomunicaciones.

Drinkable water systems, any kind of irrigation systems, fertilizing irrigation included; canalizations for wine, beer, beverages and other alimentary fluids; industrial equipments for acids bases, salts; swimming pools with fresh or sea water, ship installations, etc.

Conduites d'eau potable, installations d'irrigation de toute sorte, installations industrielles pour acides, sels, piscines d'eau douce, eau de mer, installations a bord des bateaux, etc.

## MATERIALES • MATERIALS • MATÉRIAUX

Cuerpo y tuercas: Polipropileno. Bicono de agarre: Resina acetálica. Juntas tóricas: Caucho nitrilo. Refuerzos metálicos: Acero inoxidable.

Body and nut: Polypropylene. O-Ring: Nitrile Rubber. Clenching ring: Polyacetal Resin. Metal reinforcements: Stainless steel.

Corps d'appui et écrou: Polypropylène. O-Ring in NBR Bague de serrage: Polyacetal resine. Renforcement métalliques: Acier inoxydable

## CONDICIONES DE TRABAJO • WORKING CONDITIONS • CONDITIONS DE TRAVAIL

Temperatura máxima: 80 °C

Presión nominal:

-16 Atm a 20°C hasta Ø63

-10 Atm a 20°C a partir de Ø75

Maximum temperature: 80°C / 176°F

Rated pressure:

-16 Atm at 20°C / 235 PSI at 68°F up to Ø63

-10 Atm at 20°C / 147 PSI at 68°F from Ø75

Température maximum: 80 °C

Pression nominale:

-16 Atm a 20°C jusqu'à Ø63

-10 Atm a 20°C a partir du Ø75

## PRESCRIPCIÓN SANITARIA • NON TOXICITY • NORMES SANITAIRES

Piezas especiales para la conducción de agua y fluidos alimentarios, según las leyes y las normas vigentes en los países del mercado común.

Materials are fully conform with the international specification relating to hygiene and sanitary requirements for the transport of the potable water and alimentary fluids.

Les raccords STP sont conformes aux lois et aux prescriptions sanitaires en vigueur dans les états européens, concernant le transport d'eau potable, vins, boissons et fluides alimentaires.

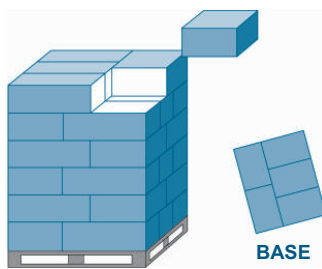
\*\* Todas las piezas rosca hembra van reforzadas con aro metálico en acero inoxidable.

\*\* All female nipple are reinforced with stainless steel metal

\*\* Tous les raccords femelles (manchon, te et coude) sont renforcés avec bague métallique en acier inoxydable.

## EMBALAJES Packing Emballage

### A



#### CAJA-CAISSE-BOX A

Volumen caja: 0,0744 m<sup>3</sup>

Caja: 60 (ø) x 31 (ø) x 40 (ø)cm

#### PALET:

100 (ø) x 120 (ø) x 200 (ø)cm

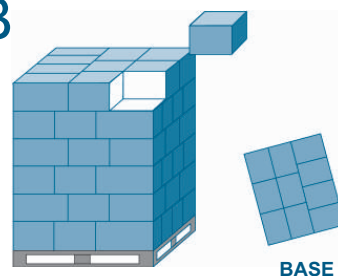
6 Filas x 5 cajas (30 cajas)

Altura: 200 cm.

Volumen palet: 2,40 m<sup>3</sup>

BASE

### B



#### CAJA-CAISSE-BOX B

Volumen caisse: 0,0372 m<sup>3</sup>

Caisse: 40 (ø) x 31 (ø) x 30 (ø)cm

#### PALETTE:

100 (ø) x 120 (ø) x 200 (ø)cm

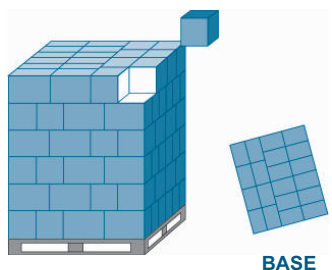
6 Filas x 10 caisses (60 caisses)

Hauteur: 200 cm.

Volume palette: 2,40 m<sup>3</sup>

BASE

### C



#### CAJA-CAISSE-BOX A

Box volume: 0,0186 m<sup>3</sup>

Box: 30 (ø) x 31 (ø) x 20 (ø)cm

#### PALET:

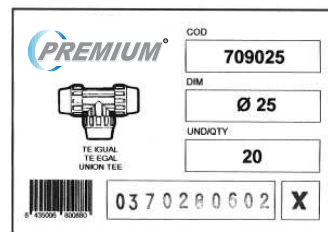
100 (ø) x 120 (ø) x 200 (ø)cm

6 Rows x 20 boxes (120 boxes)

Height: 200 cm.

Pallet volume: 2,40 m<sup>3</sup>

BASE



Trazabilidad

Etiqueta con información histórica ISO 9002

Traceability

Label with historical information ISO 9002

Traçabilité avec information historique ISO 9002

\*POSIBILIDAD DE PERSONALIZAR EL PALET CON DIFERENTES TIPOS DE CAJA

\*THE POSSIBILITY OF CUSTOMISING THE PALLET FOR VARIOUS TYPES OF BOX

\*POSSIBILITÉ DE PERSONNALISER LA PALLETTE AVEC DIFFÉRENTS TYPES DE CAISSE

## 1. Accesorios STP

### 1.1 Campo de aplicación

Se garantiza la estanqueidad y resistencia en cualquier tipo de instalación, tanto a baja presión como a la máxima de utilización de la tubería.

Los accesorios PLAST se instalan con suma facilidad.

Al final del montaje solo se necesita de una llave para asegurar su cierre y estanqueidad.

Se emplea para la conexión de tuberías de polietileno de alta o baja densidad cuyas cotas estén entre los siguientes diámetros nominales:

mm	pulgadas/inches W.Gas (ISO-7/ISO-228)
Ø16	1/2"
Ø20	1/2"
Ø25	3/4"
Ø32	1"
Ø40	1 1/4"
Ø50	1 1/2"
Ø63	2"
Ø75	2 1/2"
Ø90	3"
Ø110	4"

La nomenclatura de diámetros nominales marcados en las tuberías de polietileno concuerda con los diámetros exteriores reales de la misma y sirve como referencia para indicar los diversos elementos en una instalación, tales como accesorios, válvulas, etc.

### 1.2 Componentes del accesorio.

## 1. STP Fittings

### 1.1 Application fields.

The leaktightness and the resistance of the fittings are guaranteed into all types of pipelines, both under the low and maximum working pressure of the pipeline.

PLAST fittings are easy to assembly. Use of a wrench tool at the end of the assembling process is required in order to ensure tightness and leaktightness.

The fittings are suitable for high and low density polyethylene pipe joining. The polyethylene pipes nominal diameters sizes are as follows:

IPS	Rosca/Thread NPT
1/2"	1/2"
3/4"	3/4"
1"	1"
1 1/4"	1 1/4"
1 1/2"	1 1/2"
2"	2"
3"	3"
4"	4"

The nomenclature of the nominal diameters, which are marked on the polyethylene pipes, is in accordance with real external pipes diameters and refers to different assembly elements as fittings, valves and etc.

### 1.2 Fitting components.

## 1. Raccords STP

### 1.1 Domaine d'application.

L'étanchéité est garantie pour toutes les installations, qu'elles soient de basse ou haute pression.

Les raccords STP Plast sont facile à installer. Une fois l'installation terminée il faut juste sécurisé le serrage et l'étanchéité avec une clé.

Les raccords fonctionnent avec les tuyaux de basse et haute densité. Les diamètres des tuyaux polyéthylène sont comme suit :

CTS	Rosca/Thread NPT
1/2"	1/2"
3/4"	3/4"
1"	1"
1 1/4"	1 1/4"
1 1/2"	1 1/2"
2"	2"

La nomenclature des diamètres nominaux marqués sur les tuyaux polyéthylène, en accord avec les diamètres extérieur réel des tuyaux, est la référence pour les différentes installations de raccords, vannes, etc.

### 1.2 Composants du raccord.



- 1) Cuerpo / Body / Corps
- 2) Junta tórica / O-ring / O-ring
- 3) Casquillo (de apriete) / Compression ring / Bague de compression
- 4) Bicono (de agarre) / Grip ring / Bague de crantage
- 5) Tuerca / Nut / Écrou de serrage

**1.2.1 Cuerpo:** Es el soporte y sujeción de los demás elementos. Determina la configuración del Accesorio (Enlace, Manguito, Té, etc). Contiene el alojamiento de la junta tórica y la tuerca que se une a él, mediante una rosca especial trapecoidal, con objeto de soportar los esfuerzos de tracción.

La rosca de salida para acoplar a válvulas, llaves u otros accesorios estandarizados del mercado es del tipo Whitworth Gas/BSP (ISO-7/ISO-228). (Bajo pedido en NPT).

**1.2.1 Body:** It's a stand and clamp for the rest of the components. He determines the fitting configuration (Adaptor, Coupling, Tee, etc.). Contains the o-ring and nut housing, which joins the body thanks to the special trapezoidal thread. He supports the pull-out forces.

The outlet thread helps to join the valves, shut-off cocks an others fittings available on the market. Thread type: Whitworth Gas/BSP (ISO-7/ISO-228). (Available in NPT under request)

**1.2.1 Corps:** C'est le support central des autres éléments du raccord déterminant sa configuration (Manchon, Té, etc.). Contient l'emplacement pour le joint et l'écrou de serrage étudié pour supporter les efforts à la traction.

Les filetages et taraudages sont de standards internationales Whitworth Gas/BSP (ISO-7/ISO-228). (en NPT disponible sous demande)



**1.2.2 Junta tórica:** Es el elemento que asegura la estanqueidad del conjunto, tanto a baja presión, cómo cuando el accesorio trabaja a la máxima presión de utilización de la tubería.

**1.2.3 Casquillo:** Se encarga de ajustar la junta tórica sobre el tubo para conseguir la estanqueidad, lograda gracias a la presión que le transmite la tuerca al ser roscada en el cuerpo.

**1.2.4 Bicono:** Anillo cónico dentado interiormente para sujetar el tubo y evitar el arranque por efecto de la presión.

**1.2.5 Tuerca:** Es el elemento que cierra el conjunto de todos los componentes ajustando la junta tórica a través del casquillo y reteniendo el bicono.

**1.3 Suministro e identificación de los Accesorios.**  
Los accesorios STP PLAST, se suministran en cajas de cartón etiquetadas con como siguiente :

**1.2.2 O-ring:** This element ensures the leaktightness of the set, both under the low pressure and when the fitting is working under the maximum pipeline pressure.

**1.2.3 Compression ring:** Is responsible of o-ring adjustment against the pipe to ensure the leaktightness; achieved thanks to the pressure transmitted from the threaded nut to the body.

**1.2.4 Grip ring:** conical ring teeth inside for clamp the pipe and avoid the pull-out of the fitting because of the pipeline pressure.

**1.2.5 Nut:** It's the element, which closes the kit of the all components. He adjusts the o-ring, through the compression ring and retains the grip ring.

**1.3 Supply and identification of the fittings.**  
PLAST fittings are supplied packed into the carton boxes with label information as below :

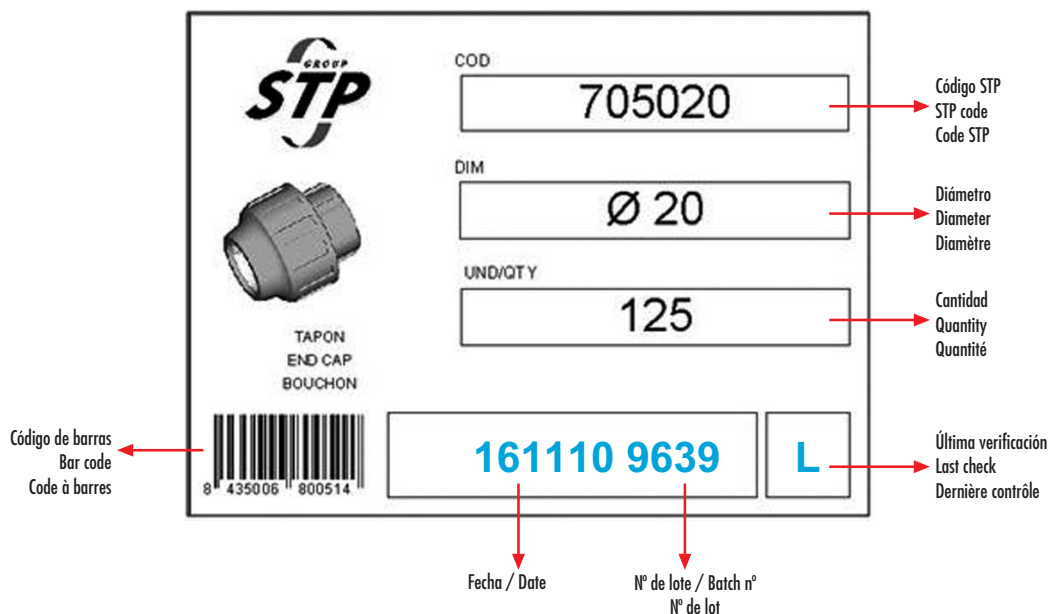
**1.2.2 O-ring:** C'est l'élément qui assure l'étanchéité du raccord à basse ou haute pression.

**1.2.3 Bague de compression:** responsable d'ajuster et de comprimer le joint pour assurer l'étanchéité. La compression se fait para le serrage de l'écrou. (étanchéité mécanique).

**1.2.4 Bague de crantage:** bague conique et dentée qui, fixant le tube évite tout arrachement du tuyau.

**1.2.5 Écrou de serrage:** élément qui fixe l'ensemble de tous les composants ajustant les le joint, la bague de crantage et de compression.

**1.3 Approvisionnement et identification des raccords.**  
Les raccords STP Plast sont emballés dans des cartons avec l'étiquetage suivant :



Las tuercas de los accesorios PLAST, llevan grabado de forma indeleble el anagrama PLAST, el material utilizado (PP-B), el Diámetro Nominal (en mm. ó pulgadas), la Presión Nominal y la norma que cumple.

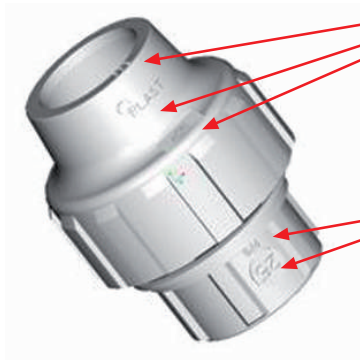
Asimismo, los cuerpos, con otro grabado indeleble, llevan marcados: el material utilizado (PP-B), el diámetro nominal (en mm. ó pulgadas), la presión nominal y en caso de figuras con rosca, el tipo de la rosca de enlace exterior o interior.

PLAST fitting's nuts carry the indelible mark of PLAST anagram, used row material (PP-B), nominal diameter (in mm or inches), nominal pressure and the corresponding ISO norm.

Bodies of the fittings carry the indelible mark of: used row material (PP-B), nominal diameter (in mm or inches), nominal pressure and in case of threaded fittings, external or internal thread type.

Les écrous PLAST sont marqués de forme indélébile par : "Plast", matière utilisée PP-B, le diamètre nominal en mm ou en pouce, la pression nominale et la norme ISO internationale correspondante aux raccords à compression.

Les corps sont marqués : PP-B, diamètres, la pression nominale y le filetage ou taraudage.



Marcas: PLAST, PP-B, Presión nominal, Diámetro Nominal y norma ISO que cumple.  
 Marks: PLAST, PP-B, Nominal Pressure, Nominal Diameter and corresponding ISO norm.  
 Marques: PLAST, PP-B, Pression Nominale, Diamètre Nominale et correspondant norme ISO.

Marcas: PP-B, Presión Nominal, Diámetro Nominal y rosca de enlace.  
 Marks: PP-B, Nominal Pressure, Nominal Diameter and thread size.  
 Marques: PLAST; PP-B, Pression Nominale, Diamètre Nominale et filetage du raccord.

### 1.4 Instrucciones de montaje de los accesorios.

El montaje de los accesorios PLAST, es fácil y rápido, no se precisan herramientas o útiles especiales. De todas maneras, se recomienda usar llaves de gancho articuladas, muy utilizada por los instaladores.

STP dispone de su gama de llaves de gancho, diseñadas especialmente para nuestros accesorios.

### 1.4 Fittings assembly instructions.

PLAST fittings assembly is fast and easy; use of any special tools is necessary. Anyway, is recommended use of an articulated hook wrench, pretty often employed by installers.

STP has his own range of the hook wrenches, designed especially for ours fittings.

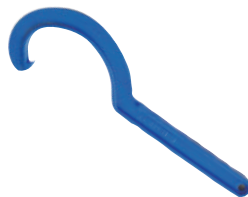
### 1.4 Instructions d'assemblage des raccords.

L'installation des raccords STP Plast est rapide et facile. Seule une clé est recommandée pour finir l'installation.

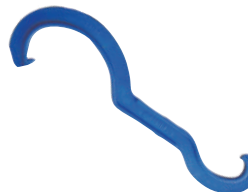
STP dispose d'une gamme de clés de serrage étudiée pour nos raccords et pour tous les diamètres.



Llave pequeña  
 Small wrench  
 Clé petite  
 Ø16 a 32



Llave grande  
 Big wrench  
 Clé grande  
 Ø40 a 63



Llave doble  
 Double wrench  
 Clé doublé  
 Ø16 a 32 y Ø40 a 63



Llaves metálicas  
 Metallic wrenches  
 Clés métalliques  
 Ø40 a 63  
 Ø75 a 110

## 2. Montaje de accesorios para tubos de Ø16 a Ø32

Teniendo en cuenta el característico sistema "entra fácil" de los accesorios PLAST, para las medidas desde Ø16 a Ø32, se deberá realizar el montaje de la siguiente manera:

1) Tomar la medida (con un utensilio adecuado) desde el fondo-tope del cuerpo de accesorio hasta la tuerca completamente roscada. Marcar la medida en el tubo.

## 1. Fittings assembly for pipes from Ø16 up to Ø32

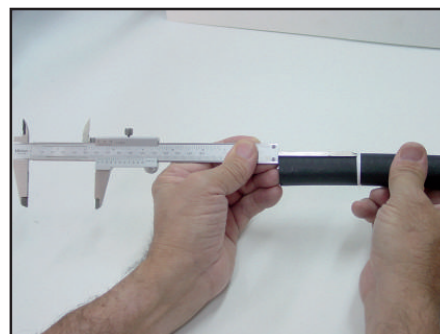
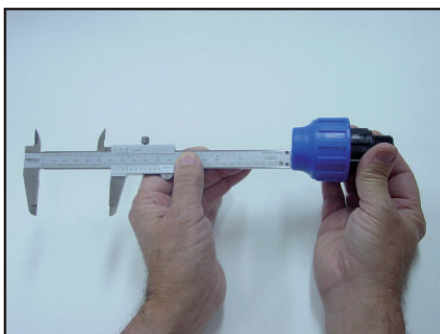
The assembly of the small diameters fittings PLAST, sizes from Ø16 to Ø32, paying attention to the characteristic "push-fitting" system, should be provided as follows:

1) Measure the length from the internal stop of the fitting body to the nut top completely threaded. Mark the length on the pipe.

## 1. L'assemblage des raccords pour tuyaux de Ø16 à Ø32

Les raccords de 16 à 32mm sont "push-fitting" comme suivant :

1) Mesurer depuis la butée du corps jusqu'à l'extrémité de l'écrou serré. Marquer le tuyau.



2) Aflojar (desenroscar) la tuerca unas 2 vueltas y colocar el tubo hasta que la marca hecha en él entre por la tuerca.

2) Release (unscrew) the nut near 2 full turns and insert the pipe till marked on it sign, enters into the nut.

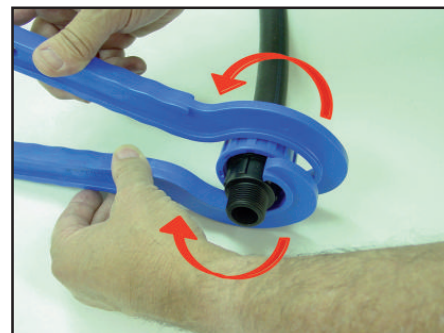
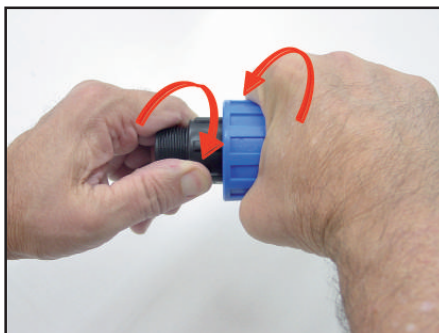
2) Desserrer 2 tours l'écrou et insérer le tuyau jusqu'à que le marquage sur le tuyau passe l'écrou.



3) Apretar (roscar) la tuerca con la mano. Asegurarla con dos llaves (sujetando la tuerca y el cuerpo) para el apriete total del accesorio.

3) Tighten (screw) the nut with a hand. Using two wrenches ensure full tightness of the fitting (clamping the nut and the body).

3) Visser l'écrou à la main et assurer l'installation en utilisant deux clés à serrage comme ci-dessous:



Nota: se recomienda, como en cualquier instalación, dar una primera presión (ejemplo: 5 Bares) al conjunto, quitarla y apretar de nuevo, antes de dar la presión de uso definitivo.

Note: is recommended, as for any installation, apply a dummy pressure (for example: 5 Bars) into the pipeline, abort and tighten again, before employing the final working pressure.

Note : il est recommandé de mettre en pression un 1ere fois à 5 bars, l'enlever, et resserrer avant de mettre en pression normale.

### 3. Montaje de accesorios para tubos de Ø40 a Ø50

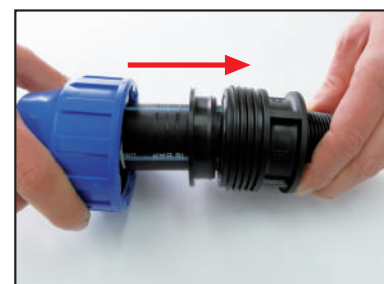
- 1) Desmontar todos los elementos del accesorio.
- 2) Procurar que no queden rebabas del corte del tubo pegadas en el mismo y colocar la tuerca, el casquillo y la junta tórica dentro del accesorio.
- 3) Tomar la medida desde el fondo-tope del cuerpo de accesorio hasta la tuerca completamente roscada. Marcar la medida en el tubo.

### 3. Fittings assembly for pipes from Ø40 to Ø50

- 1) Disassembly the fitting separating all his components.
- 2) Clean all burrs of the pipe that can be stuck onto and place the nut, the compression ring and o-ring inside the fitting.
- 3) Measure the length from the internal stop of the fitting body to the nut top completely threaded. Mark the length on the pipe.

### 3. L'assemblage des raccords pour tuyaux de Ø40 à Ø50

- 1) Démontez les composants du raccord.
- 2) Nettoyer et chanfreiner le tuyau et installer sur le tube respectivement l'écrou, bague de crantage, bague de compression et joint.
- 3) Mesurer depuis la butée du corps jusqu'à l'extrémité de l'écrou serré. Marquer le tuyau.





4) Colocar el tubo hasta el fondo-tope del cuerpo, acercar la junta tórica y el casquillo todo lo que se pueda al cuerpo. Roscar la tuerca, con 2 llaves (para el cuerpo y la tuerca).

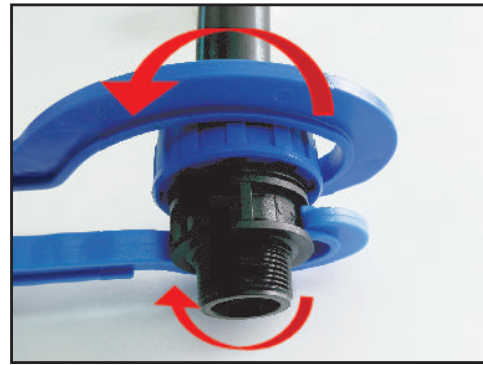
5) Desenroscar la tuerca y retirarla hacia atrás del tubo. Colocar el bicono, asegurando que quede pegado al casquillo. Roscar de nuevo la tuerca con 2 llaves.

4) Insert the pipe until the internal stop of the fitting body. Bring closer (to the body) the o-ring and the compression ring, as much as possible. Screw the nut using 2 wrenches (one for the body and one for the nut).

5) Unscrew the nut and remove it towards the pipe. Placing the grip ring be sure that he's as close as possible to the compression ring. Again, screw the nut with 2 wrenches.

4) Insérer le tuyau jusqu'à la butée, avancer le joint et bague de compression au maximum jusqu'au corps et serrer avec les deux clés.

5) Desserrer l'écrou et placer la bague de crantage sur le tuyau et appuyée sur la bague de compression. Serrer l'ensemble avec deux clés.



Nota: se recomienda, como en cualquier instalación, dar una primera presión (ejemplo: 5 Bares) al conjunto, quitarla y reapretar, antes de dar la presión de uso definitivo.

Note: is recommended, as for any installation, apply a dummy pressure (for example: 5 Bars) into the pipeline, abort and tighten again, before employing the final working pressure.

Note : il est recommandé de mettre en pression un 1ere fois à 5 bars, l'enlever, et resserrer avant de mettre en pression normale.

#### 4. Montaje de accesorios para tubos de Ø63 a Ø110

- 1) Tomar la medida desde el fondo-tope del cuerpo de accesorio hasta la tuerca completamente roscada. Marcar la medida en el tubo.
- 2) Hacer un buen chaflán en el extremo del tubo a introducir en el accesorio.

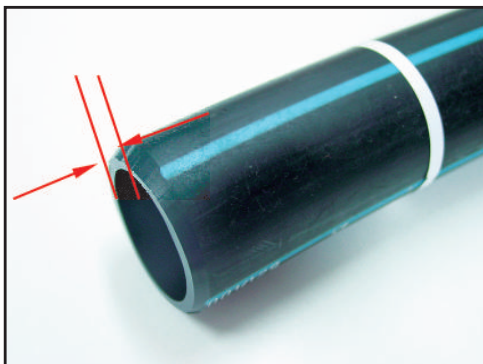
#### 4. Fittings assembly for pipes from Ø63 to Ø110

- 1) Measure the length from the internal stop of the fitting body to the nut top completely threaded. Mark the length on the pipe.
- 2) Make the bevel at the end of the pipe where introducing the fitting.

#### 4. 4. L'assemblage des raccords pour tuyaux de Ø63 à Ø110

- 1) Mesurer depuis la butée du corps jusqu'à l'extrémité de l'écrou serré. Marquer le tuyau.
- Chanfreiner l'extrémité du tuyau avant de l'introduite dans le tuyau.

4 ó 5 mm



3) Aflojar (desenroscar) la tuerca unas 2 vueltas y colocar el tubo hasta que la marca hecha en él entre por la tuerca.

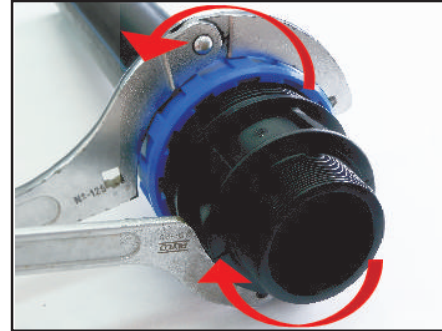
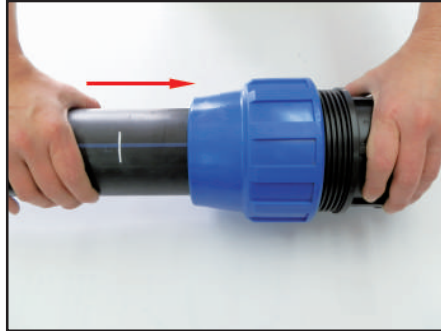
3) Release (unscrew) the nut near 2 full turns and place the pipe till marked on it sign, enters into the nut.

3) Desserrer 2 tours l'écrou et insérer le tuyau jusqu'à que le marquage sur le tuyau passe l'écrou.

4) Apretar (roscar) la tuerca con la mano. Asegurarla con dos llaves (sujetando la tuerca y el cuerpo) para el apriete total del accesorio.

4) Tighten (screw) the nut with a hand. Using two wrenches ensure full tightness of the fitting (clamping the nut and the body).

4) Visser l'écrou à la main et assurer l'installation en utilisant deux clés à serrage comme ci-dessous :



Nota: se recomienda, como en cualquier instalación, dar una primera presión (ejemplo: 5 Bares) al conjunto, quitarla y reapretar, antes de dar la presión de uso definitivo.

Note: is recommended, as for any installation, apply a dummy pressure (for example: 5 Bars) into the pipeline, abort and tighten again, before employing the final working pressure.

Note : il est recommandé de mettre en pression un 1ere fois à 5 bars, l'enlever, et resserrer avant de mettre en pression normale.

## 5. Montaje de accesorios Universales

## 5. Universal fittings assembly

## 5. Installation Raccords Universels

### 5.1 Campo de aplicación.

### 5.1 Application fields.

### 5.1 Domaine d'application.

mm	pulgadas/inches
Ø15-22	3/8" a 1/2"
Ø21-27	1/2" a 3/4"
Ø27-35	3/4" a 1"
Ø35-50	1 1/4" a 1 1/2"

Se emplea para la conexión de tuberías de polietileno de alta o baja densidad, cobre, acero galvanizado, plomo, PVC, etc.

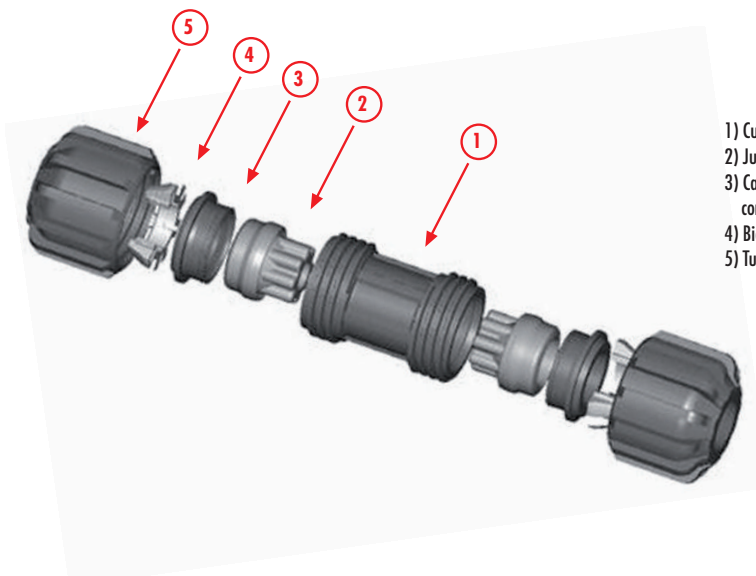
These fittings are useful for joining the high and low density polyethylene pipes, cooper, galvanized steel, lead, pvc, etc.

Les raccords universels sont utilisés pour installer des tuyaux polyéthylène de basse à haute densité, cuivres, galva, plomb, pvc, etc..

### 5.2 Sistema de montaje.

### 5.2 Assembly method.

### 5.2 Installation.



- 1) Cuerpo / Body / Corps
- 2) Junta tope / Rubber / Joint
- 3) Casquillo (de apriete) / Compression ring / Bague de compression
- 4) Bicono (de agarre) / Grip ring / Bague de crantage
- 5) Tuerca / Nut / Écrou de serrage

1) Aflojar (desenroscar) la tuerca unas 2 vueltas y hacer pasar el tubo a través del bicono, casquillo y junta tope hasta el tope de esta. NO FORZAR DICHO TOPE.

2) Ir roscando la tuerca con 2 llaves, sujetando la tuerca y el cuerpo, hasta que la fuerza a efectuar sea considerable. Teniendo medidas variables, no se nota un final de roscado concreto.

3) Procurar que el tubo quede recto respecto del cuerpo.

1) Release (unscrew) the nut near 2 full turns and insert the pipe through the compression ring, grip ring and the rubber to the bottom of itself. DO NOT FORCE THE RUBBER BOTTOM.

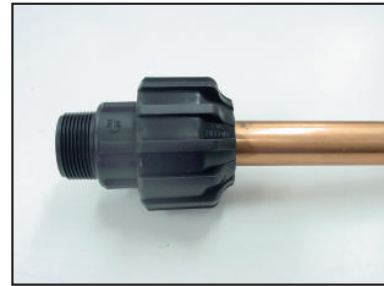
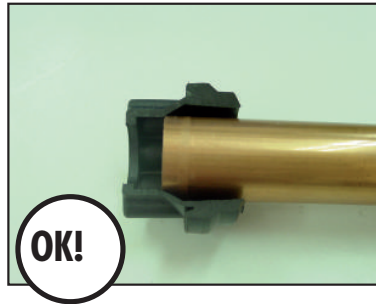
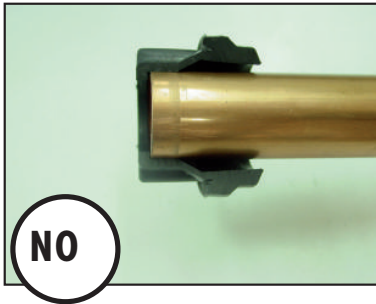
2) Screw the nut using two wrenches, clamping the nut and the body, till the employed force will be substantial. Considering that the measures are variable, there's no definitive end of screwing.

3) Attempt to leave the pipe completely straight respect the body.

1) Desserrer l'écrou 2 tours et insérer le tube à travers la bague de crantage et de compression jusqu'au joint. NE PAS PASSER LE JOINT.

2) Serrer l'écrou au maximum avec les deux clés (l'une sur le corps et l'autre sur l'écrou).

3) Le tube doit rester droit dans le corps du raccord.

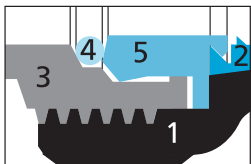


Nota: se recomienda, como en cualquier instalación, dar una primera presión (ejemplo: 5 Bares) al conjunto, quitarla y reapretar, antes de dar la presión de uso definitivo.

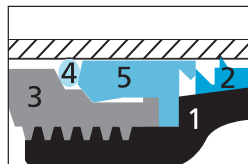
Note: is recommended, as for any installation, apply a dummy pressure (for example: 5 Bars) into the pipeline, abort and tighten again, before employing the final working pressure.

Note : il est recommandé de mettre en pression un 1ere fois à 5 bars, l'enlever, et resserrer avant de mettre en pression normale.

#### ESTANQUEIDAD HIDRÁULICA - HYDRAULIC SEAL- ETANCHÉITÉ HYDRAULIQUE



1. Tuerca - Nut- Ecrou
2. Bicono - Clenching ring  
Bague de serrage
3. Cuerpo - Body - Corps
4. Junta tórica - O-ring - Joint torique
5. Casquillo - Compression ring  
Bague de compression

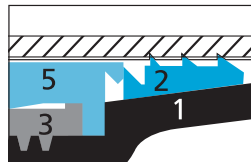
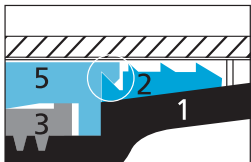


La tuerca, a través del casquillo, mantiene siempre presionada la junta tórica. El diseño cónico del fondo del casquillo y del cuerpo favorece la presión de la junta contra el tubo, independientemente de la presión interna del mismo.

Due to the pressing-ring, the nut always keeps the O-ring under pressure. The conical design of the pressing-ring and the nut allows the pressure of the ring against the pipe, independently of its internal pressure.

L'écrou maintient toujours le joint torique serré grâce à la bague. Le dessin conique du fond de la bague et du corps favorise à la pression du joint contre le tuyau, indépendamment de la pression interne de celui-ci

#### TRABAJO MECÁNICO - MECHANICAL WORK- L'EXERCICE MECANIQUE



El especial diseño del accesorio permite al bicono acompañar al tubo en su natural desplazamiento debido a la tracción, aumentando el agarre sobre el mismo.

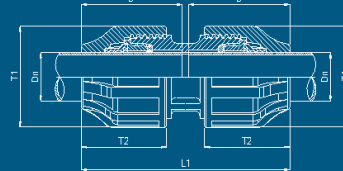
The special design of the fitting allows the clenching ring to go with the pipe in its natural movement due to the pull out while the clenching ring increases the resistance and holds firmly the pipe.

Le dessin particulier de l'accessoire permet au bicono d'accompagner le tuyau lors de son déplacement naturel dû à la traction, en augmentant son adhésion sur celui-ci.



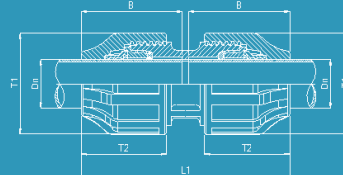
CODE	Dn	L1	T1	T2	B		WEIGHT x BOX KG	VOLUME x BOX m <sup>3</sup>
701016G3	16	106	47	40,2	51	50	3,80	0,019
701020G3	20	106	47	40,2	51		3,55	
701025G3	25	118	54	46	57		3,24	
701032G3	32	126	64,5	49	61		3,66	
701040G3	40	157	80	58	76	11	2,99	0,036
701050G3	50	189	94	70	92	14	6,09	
701063G3	63	216	117	86	103,5	15	13,04	
701075G3	75	265,5	126	108	129	14	14,72	
701090G3	90	288	146	117,5	142	8	13,10	0,074
701110G3	110	353	176,5	139	172,5	3	11,53	

**MANGUITO IGUAL**  
**COUPLING**  
**MANCHON**



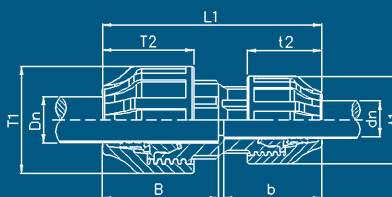
CODE	Dn	L1	T1	T2		WEIGHT x BOX KG	VOLUME x BOX m <sup>3</sup>
725050G3	50	189	94	70	14	6,09	0,036
725063G3	63	216	117	86	15	13,04	0,074
725075G3	75	265,5	126	108	14	14,72	
725090G3	90	288	146	117,5	8	13,10	
725110G3	110	353	176,5	139	3	11,53	

**MANGUITO DE REPARACIÓN**  
**SLIP COUPLING**  
**MANCHON DE RÉPARATION**



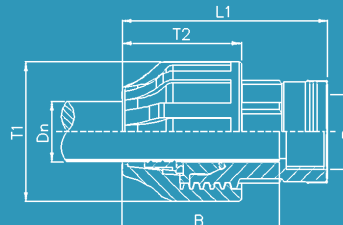
CODE	Dn	dn	L1	T1	T2	t1	t2	B	b		WEIGHT x BOX KG	VOLUME x BOX m <sup>3</sup>
702020G3	20	16	105	47	40,2	47	40,2	51,5	50	50	3,31	0,019
702024G3	25	16	112	54	46	47	40,2	57,2	51	45	3,77	
702025G3		20	112	54	46	47	40,2	57,2	51	45	3,68	
702031G3	32	20	115	64,5	49	47	40,2	60	54,5	30	3,27	
702032G3		25	121	64,5	49	54	46	60,5	57	30	3,59	
702039G3	40	25	137	80	58	54	46	75,5	57	16	2,83	
702040G3		32	147	80	58	64,5	49	82	60,5	15	3,58	
702049G3	50	32	155,5	94	70	64,5	49	91	60,5	18	6,37	
702050G3		40	172	94	70	80	58	92,5	75,5	18	6,56	
702062G3	63	40	193	117	86	80	58	104	78	20	10,59	
702063G3		50	203,5	117	86	94	70	104	93,5	20	11,91	
702075G3	75	63	249	126	108	117	86	135	108	14	13,08	0,074
702090G3	90	75	263	146	117,5	126	108	148	138	8	11,14	
702110G3	110	90	335	176,5	139	146	117,5	180	158	4	11,73	

**MANGUITO REDUCIDO**  
**REDUCING COUPLING**  
**MANCHON RÉDUIT**

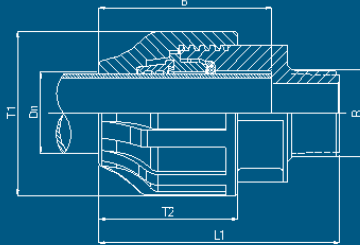


CODE	Dn	R	L1	T1	T2	B		WEIGHT x BOX KG	VOLUME x BOX m <sup>3</sup>
703016G3	16	1/2"	72,5	47	40,2	52	86	4,68	0,019
703017G3		3/4"	72,5	47	40,2	52			
703020G3	20	1/2"	72,5	47	40,2	52	90	5,00	
703022G3		3/4"	72,5	47	40,2	52			
703024G3	25	1/2"	81	54	46	60	60	3,84	
703025G3		3/4"	82	54	46	60			
703027G3	32	1"	85	54	46	60	56	4,80	
703030G3		1/2"	88	64,5	49	65,5			
703031G3	32	3/4"	88	64,5	49	66	35	3,40	
703032G3		1"	88	64,5	49	64			
703033G3	40	1 1/4"	94	64,5	49	70	22	4,00	
703039G3		1"	106	80	58	78			
703040G3	40	1 1/4"	106	80	58	78	22	3,60	
703041G3		1 1/2"	106	80	58	78			
703050G3	50	1 1/2"	118	94	70	89	25	6,94	0,037
703063G3	63	2"	145	117	86	109	26	14,44	
703074G3	75	2"	169	126	108	132	20	12,95	
703075G3		2 1/2"	169	126	108	132			
703090G3	90	3"	184	146	117,5	146	12	12,49	0,074
703110G3	110	4"	219	176,5	139	176	6	9,96	

**ENLACE ROSCA HEMBRA**  
**FEMALE ADAPTER**  
**RACCORD FEMELLE**

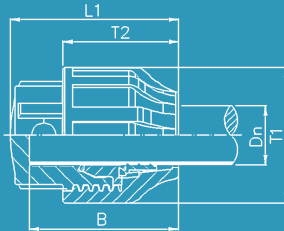


ENLACE ROSCA MACHO  
MALE ADAPTER  
RACCORD MÂLE



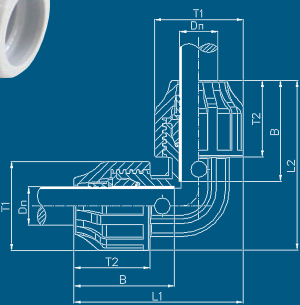
CODE	Dn	R	L1	T1	T2	B	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
704016G3	16	1/2"	71	47	40,2	49,5	90	3,76
704017G3		3/4"	71,5	47	40,2	50,5		3,80
704020G3	20	1/2"	72	47	40,2	52	86	3,58
704021G3		3/4"	72,5	47	40,2	52,5		3,57
704024G3	25	1/2"	79	54	46	57,5	60	3,06
704025G3		3/4"	80,5	54	46	59		3,16
704026G3		1"	83	54	46	59		3,24
704031G3	32	3/4"	84	64,5	49	61,5	40	3,56
704032G3		1"	86,5	64,5	49	61		3,72
704033G3		1 1/4"	87,5	64,5	49	61,5		3,89
704038G3	40	3/4"	106	80	58	76,5	22	3,02
704039G3		1"	105	80	58	71		3,19
704040G3		1 1/4"	104,5	80	58	76		3,32
704041G3		1 1/2"	105	80	58	75		3,30
704049G3	50	1 1/4"	118	94	70	91,5	27	6,36
704050G3		1 1/2"	121	94	70	91,5		6,57
704051G3		2"	122	94	70	92		6,14
704062G3	63	1 1/2"	137	117	86	102,5	30	12,79
704063G3		2"	139	117	86	103,5		12,79
704064G3		2 1/2"	137,5	117	86	107,5		12,88
704074G3	75	2"	180,5	126	108	141,5	18	11,33
704075G3		2 1/2"	184	126	108	143,5		11,03
704076G3		3"	182	126	108	141,5		11,03
704090G3		3"	200	146	117,5	157,5		12
704110G3	110	4"	230,5	176,5	139	176	6	10,00

TAPON  
END CAP  
BOUCHON



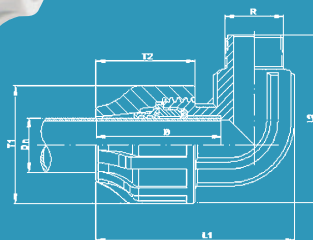
CODE	Dn	L1	T1	T2	B	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
705016G3	16	55,5	47	40,2	50,5	120	4,97
705020G3	20	56,5	47	40,2	50,5	120	4,71
705025G3	25	62,5	54	46	56	70	3,45
705032G3	32	69	64,5	49	60,5	50	3,96
705040G3	40	86	80	58	76	24	3,24
705050G3	50	100,6	94	70	91	28	6,56
705063G3	63	118	117	86	105,5	30	14,23
705075G3	75	158,5	126	108	142	20	14,28
705090G3	90	171	146	117,5	156,5	16	15,51
705110G3	110	195,5	176,5	139	181	6	13,33

CODO 90° IGUAL  
90° ELBOW  
COUDE 90° EGAL



CODE	Dn	L1	L2	T1	T2	B	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
706016G3	16	88,5	88,5	47	40,2	53	45	3,76
706020G3	20	90	90	47	40,2	53	45	3,58
706025G3	25	102	102	54	46	59	30	3,13
706032G3	32	111,5	111,5	64,5	49	61	20	3,26
706040G3	40	138,5	138,5	80	58	76	10	3,09
706050G3	50	166	166	94	70	91	12	5,45
706063G3	63	197	197	117	86	105,5	14	12,65
706075G3	75	235	235	126	108	123	9	10,76
706090G3	90	267	267	146	117,5	145	6	11,68
706110G3	110	322	322	176,5	139	175,5	3	10,04

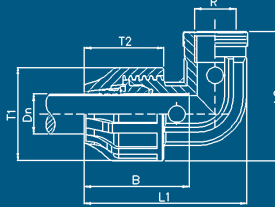
CODO 90° MACHO  
90° ELBOW MALE THREAD  
COUDE MÂLE 90°



CODE	Dn	R	L1	L2	T1	T2	B	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
707016G3	16	1/2"	80,5	70,5	47	40,2	51	70	4,00
707020G3	20	1/2"	82	67,5	47	40,2	53	70	3,74
707021G3		3/4"	82,5	67	47	40,2	53		3,74
707024G3	25	1/2"	92	79	54	46	58,5	40	3,09
707025G3		3/4"	93	74,5	54	46	58,5		2,84
707026G3		1"	92	81	54	46	59		2,84
707031G3	32	3/4"	105,5	83,5	64,5	49	60,5	30	3,90
707032G3		1"	102,5	92,5	64,5	49	61		3,81
707033G3		1 1/4"	104	90	64,5	50	60,5		3,90
707039G3	40	1"	125,5	105	80	58	75,5	15	3,01
707040G3		1 1/4"	127	106	80	58	76		3,01
707050G3	50	1 1/2"	153	128	94	70	91,5	18	6,24
707063G3	63	2"	176	141	117	86	100,5	20	12,68

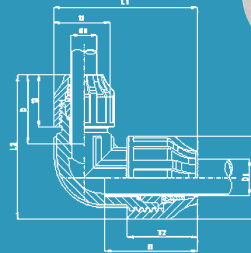
CODE	Dn	R	L1	L2	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
708016G3	16	1/2"	80,5	66	47	40,2	50,5		4,37	
708020G3	20	1/2"	82	66	47	40,2	51,5	70	4,04	
708021G3		3/4"	85,5	68	47	40,2	54		4,04	
708024G3		1/2"	92,5	67	54	46	59		3,38	
708025G3	25	3/4"	93	73,5	54	46	57,5	40	3,03	
708026G3		1"	98	75,5	54	46	59		3,03	
708029G3		1/2"	98	72	64,5	49	61,5		4,28	0,019
708031G3	32	3/4"	102,5	79	64,5	49	61,5	30	4,24	
708032G3		1"	103	91	64,5	49	61,5		3,72	
708033G3		1 1/4"	100	80	62	55	61,5		3,70	
708039G3	40	1"	127	103	80	58	76,5	15	3,49	
708040G3		1 1/4"	127,5	103	80	58	76,5		3,11	
708050G3	50	1 1/2"	153	122	94	70	91,5	18	6,45	0,037
708063G3	63	2"	175,5	142	117	86	100,5	20	13,41	
708075G3	75	2 1/2"	224,5	146,5	126	108	124	14	11,97	0,074
708090G3	90	3"	261	176,5	146	117,5	145	8	11,25	
708110G3	110	4"	313	208	176,5	139	175	4	9,20	

**CODO 90° HEMBRA**  
90° ELBOW FEMALE THREAD  
COUDE FEMELLE 90°



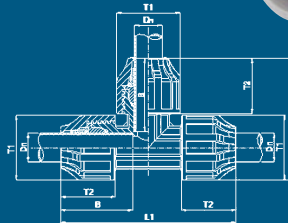
CODE	Dn	dn	L1	L2	T1	T2	t1	t2	B/b		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
726024G3	25	16	97	99	54	46	47	40,2	59 / 52	35	3,55	0,019
726025G3		20	97,5	99,5	54	46	47	40,2	59 / 53		3,55	
726032G3	32	25	107	115	64,5	49	54	46	61 / 59	20	3,26	

**CODO 90° REDUCIDO**  
90° REDUCING ELBOW  
COUDE REDUIT 90°



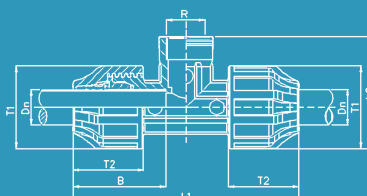
CODE	Dn	L1	L2	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
709016G3	16	129	88,5	47	40,2	52,5	30	3,76	
709020G3	20	131,5	89	47	40,2	53		3,46	
709025G3	25	147,5	101	54	46	58,5	20	2,95	0,019
709032G3	32	159	112,5	64,5	49	61	12	2,88	
709040G3	40	198	139	80	58	76	5	2,46	
709050G3	50	240,5	168	94	70	91	8	5,26	0,037
709063G3	63	280	198	117	86	106	8	12,85	
709075G3	75	343	233	126	108	122,5	5	11,11	0,074
709090G3	90	398,5	270	146	117,5	143	4	11,61	
709110G3	110	465	321,5	176,5	139	175	1	4,80	

**TE 90° IGUAL**  
90° TEE  
TÉ ÉGAL 90°



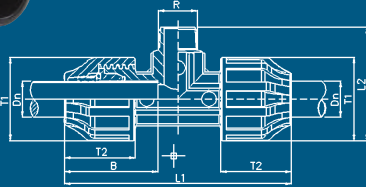
CODE	Dn	R	L1	L2	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
710016G3	16	1/2"	129	66	47	40,2	52		4,21	
710020G3	20	1/2"	132	66	47	40,2	51	40	3,72	
710021G3		3/4"	132	69	47	40,2	53		3,72	
710024G3		1/2"	150	66,5	54	46	59		3,26	
710025G3	25	3/4"	148	74	54	46	57	25	3,12	
710026G3		1"	147	76	54	46	59		3,12	
710029G3		1/2"	155	83	65	46	61		3,20	0,019
710031G3	32	3/4"	160	77,5	64,5	49	61	15	3,17	
710032G3		1"	160	91	64,5	49	61		2,97	
710033G3		1 1/4"	162	77,5	64	49	61		2,80	
710039G3	40	1"	199	102,5	80	58	76,5	8	2,85	
710040G3		1 1/4"	198,5	102	80	58	76		2,98	
710050G3	50	1 1/2"	240,5	122,5	94	70	91,5	10	5,76	0,037
710062G3	63	1 1/2"	269	143,5	117	86	100	11	11,60	
710063G3		2"	269	143,5	117	86	100		11,59	
710075G3	75	2 1/2"	345	148	126	108	122,5	8	14,59	0,074
710090G3	90	3"	398	180	146	117,5	144,5	4	9,61	
710110G3	100	4"	466	209	176,5	139	175,5	2	7,48	

**TE 90° DERIVACIÓN HEMBRA**  
90° TEE FEMALE THREADED OFFTAKE  
TÉ À TARADAGE CENTRAL



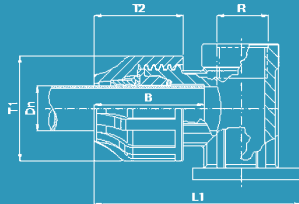


**TE 90° DERIVACIÓN MACHO**  
**90° TEE MALE THREADED OFFTAKE**  
**TÉ À FILETAGE CENTRAL**



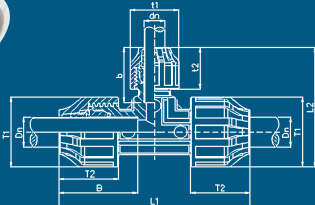
CODE	Dn	R	L1	L2	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>	
711016G3	16	1/2"	129,5	71	47	40,2	52		3,63	0,019	
711020G3	20	1/2"	132	69,5	47	40,2	53	40	3,63		
711021G3		3/4"	132	72	47	40,2	53		3,75		
711024G3	25	1/2"	147,5	72	54	46	59		2,87		
711025G3		3/4"	147,5	74,5	54	46	59	25	2,87		
711026G3		1"	147,5	80	54	46	59		3,00		
711031G3	32	3/4"	160	87,5	64,5	49	61		2,80		
711032G3		1"	160	93	64,5	49	61,5	15	2,93		
711033G3		1 1/4"	153	80	64,5	49	61		2,97		
711039G3	40	1"	198,5	102,5	80	58	76		2,98		
711040G3		1 1/4"	198	106	80	58	76	9	2,98		
711050G3	50	1 1/2"	241	123,5	94	70	91,5	10	5,45		0,037
711063G3	63	2"	269	144	117	86	100	12	12,14		0,074

**CODO GRIFO**  
**WALL SUPPORT**  
**APPLIQUE MURALE**



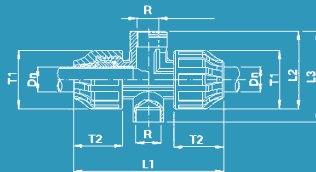
CODE	Dn	R	L1	L2	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
712016G3	16	1/2"	90	63	47	40,2	50	50	3,30	0,019
712020G3	20	1/2"	90,5	63	47	40,2	50,5	50	3,30	
712025G3	25	3/4"	104	66	54	46	59	40	3,45	

**TE 90° REDUCIDA**  
**90° REDUCING TEE**  
**TÉ REDUITE 90°**



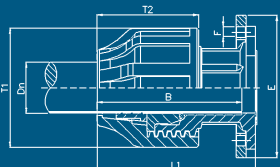
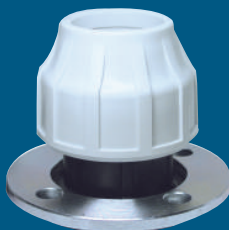
CODE	Dn	dn	L1	L2	T1	T2	t1	t2	B/b		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
713020G3	20	16	132	88	47	40,2	47	40,2	53 / 53	20	2,80	0,019
713024G3	25	16	147	99,5	54	40,2	47	40,2	58,5 / 51,35		2,92	
713025G3	25	20	147	101	54	45,8	47	40,2	59 / 53		2,92	
713032G3	32	25	159	120,5	64,5	48,5	54	46	61 / 59	12	2,75	0,037
713040G3	40	32	198,5	140	80	58	64,5	49	76 / 61,5	8	3,12	
713049G3	50	32	240	148,5	94	70	64,5	49	91 / 64	8	5,23	
713050G3		40	240,5	165	94	70	80	58	92 / 75,5		5,23	0,074
713063G3	63	50	268,5	188,5	117	85,5	94	70	99,5 / 90	8	9,32	

**TE 90° DERIVACION DOBLE HEMBRA**  
**90° TEE DOUBLE FEMALE OFFTAKE**  
**TÉ A DOUBLE TARAUDAGE CENTRAL**



CODE	Dn	R	L1	L2	L3	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
710030G3	32	3/4"	159,5	91,5	98,5	64,5	49	61	15	3,58	0,019

**ENLACE BRIDA**  
**FLANGE ADAPTER**  
**RACCORD À BRIDE**



CODE	Dn	FLANGE DN	L1	T1	T2	B	E	F		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
714050G3	50	40	116	94	70	103,5	150	4x18	10	11,60	0,037
714063G3	63	50	133	117	86	119	165	4x18	18	27,46	
714075G3	75	65	171	126	108	157	185	4x18	10	19,53	
714090G3	90	75	182	146	117,5	165	200	8x18	8	18,87	
714110G3	110	90	208	176,5	139	185	220	8x18	6	18,40	

CODE	Dn	L1	L2	L3	H	M	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
141016CG3	16	148,4	47	45	69	35	47	40,2	49,2	65	9,10	0,037
141020CG3	20	148,4	47	45	69	35	47	40,2	49,2	65	9,10	
141025CG3	25	184	67	70	103	53	54	46	56	30	9,60	
141032CG3	32	188	67	70	103	53	64,5	49	59	25	8,50	
141040CG3	40	232	93	92	139	64	80	58	70	12	8,64	
141050CG3	50	260	93	92	139	64	94	70	84	12	10,80	
141063CG3	63	335	113	105	162	73	117	86	112	5	7,40	

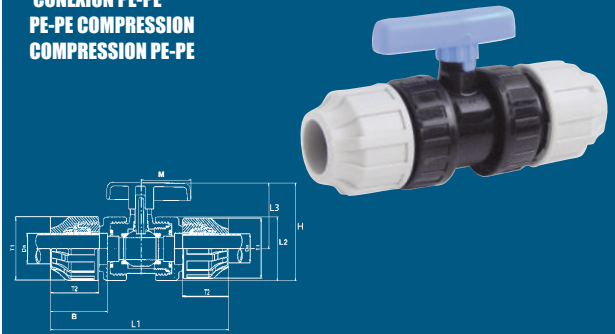
CODE	Dn	R	L1	L2	L3	L4	H	M	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
140016CXG3	16	1/2"	116,2	47	45	15	69	35	47	40,2	49,2	65	9,10	0,037
140020CXG3	20	1/2"	116,2	47	45	15	69	35	47	40,2	49,2	65	9,10	
140025CXG3	25	3/4"	145,5	67	70	16	103	53	54	46	56	30	9,60	
140032CXG3	32	1"	151,5	67	70	19	103	53	64,5	49	59	25	8,50	
140040CXG3	40	1 1/4"	189	93	92	21	139	64	80	58	70	12	8,64	
140050CXG3	50	1 1/2"	207	93	92	22	139	64	94	70	84	12	10,80	
140063CXG3	63	2"	261	113	105	26	162	73	117	86	112	5	7,40	

CODE	Dn	R	L1	L2	L3	L4	H	M	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
142016CG3	16	1/2"	132,2	47	45	15	69	35	47	40,2	49,2	65	9,10	0,037
142020CG3	20	1/2"	132,2	47	45	15	69	35	47	40,2	49,2	65	9,10	
142025CG3	25	3/4"	164	67	70	16	103	53	54	46	56	30	9,60	
142032CG3	32	1"	166,5	67	70	19	103	53	64,5	49	59	25	8,50	
142040CG3	40	1 1/4"	206,5	93	92	21	139	64	80	58	70	12	8,64	
142050CG3	50	1 1/2"	223,5	93	92	22	139	64	94	70	84	12	10,80	
142063CG3	63	2"	278	113	105	26	162	73	117	86	112	5	7,40	

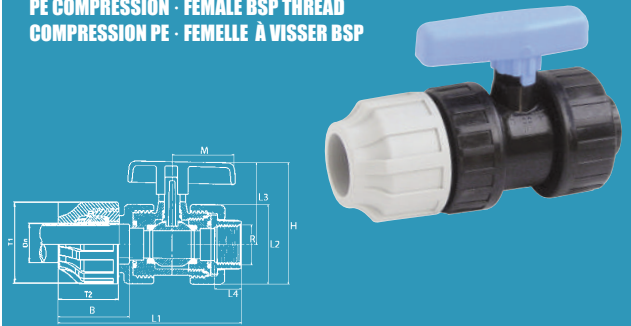
CODE	Dn	R	L1	L2	L3	L4	H	M	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
146016CFG3	16	1/2"	105,2	47	45	15	69	35	47	40,2	49,2	100	8,00	0,037
146020CFG3	20	1/2"	105,2	47	45	15	69	35	47	40,2	49,2	100	8,00	
146025CFG3	25	3/4"	133	67	70	16	103	53	54	46	56	40	8,00	
146026CFG3	32	1"	133	67	70	19	103	53	54	49	59	40	10,20	
146032CFG3	32	1"	139	67	70	19	103	53	64,5	46	56	40	12,80	
146040CFG3	40	1 1/4"	172	93	92	21	139	64	80	58	70	15	9,60	
146050CFG3	50	1 1/2"	189,5	93	92	22	139	64	94	70	84	15	12,00	
146063CFG3	63	2"	227	113	105	26	162	73	117	86	112	8	7,84	

CODE	Dn	R	L1	L2	L3	L4	H	M	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
147016CMG3	16	1/2"	111,2	47	45	15	69	35	47	40,2	49,2	100	8,00	0,037
147020CMG3	20	1/2"	111,2	47	45	15	69	35	47	40,2	49,2	100	8,00	
147025CMG3	25	3/4"	142	67	70	16	103	53	54	46	56	40	8,00	
147026CMG3	32	1"	142	67	70	19	103	53	54	49	59	40	10,20	
147032CMG3	32	1"	146	67	70	19	103	53	64,5	46	56	40	12,80	
147040CMG3	40	1 1/4"	182	93	92	21	139	64	80	58	70	15	9,60	
147050CMG3	50	1 1/2"	199,5	93	92	22	139	64	94	70	84	15	12,00	
147063CMG3	63	2"	238	113	105	26	162	73	117	86	112	8	7,84	

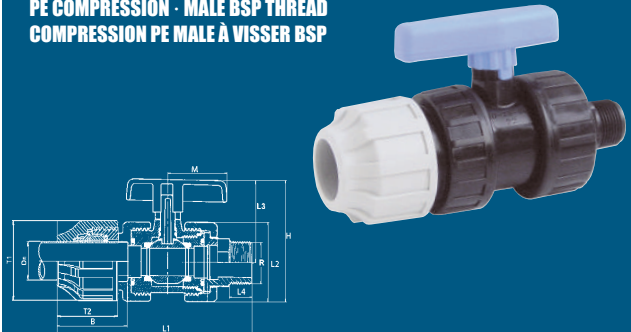
**CONEXIÓN PE-PE**  
**PE-PE COMPRESSION**  
**COMPRESSION PE-PE**



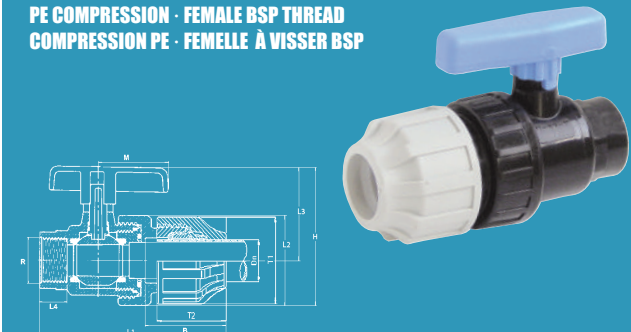
**CONEXIÓN PE · ROSCA HEMBRA BSP**  
**PE COMPRESSION · FEMALE BSP THREAD**  
**COMPRESSION PE · FEMELLE À VISSER BSP**



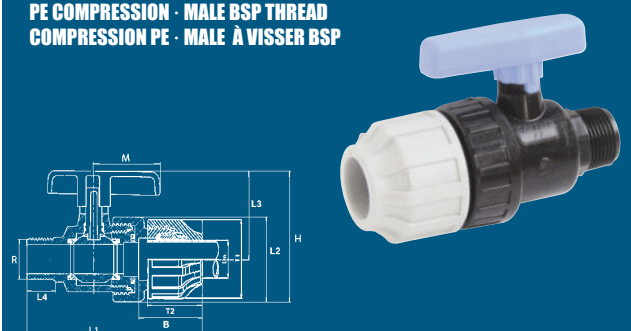
**CONEXIÓN PE · ROSCA MACHO BSP**  
**PE COMPRESSION · MALE BSP THREAD**  
**COMPRESSION PE MALE À VISSER BSP**



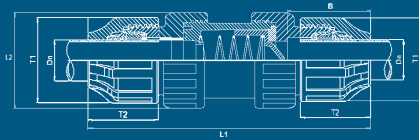
**COMPRESIÓN PE · ROSCA HEMBRA BSP**  
**PE COMPRESSION · FEMALE BSP THREAD**  
**COMPRESSION PE · FEMELLE À VISSER BSP**



**COMPRESIÓN PE · ROSCA MACHO BSP**  
**PE COMPRESSION · MALE BSP THREAD**  
**COMPRESSION PE · MALE À VISSER BSP**

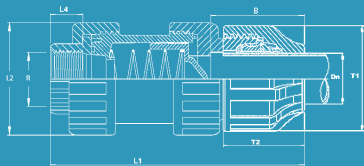


**CHECK VALVE PE-PE**  
**VALVULA ANTI RETORNO PE-PE**  
**VANNE ANTI-RETOUR PE-PE**



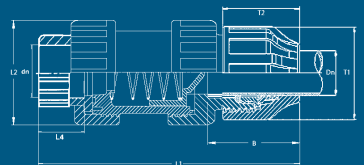
CODE	Dn	L1	L2	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
143016CG3	16	148,4	47	47	40,2	49,2	100	10,00	0,037
143020CG3	20	148,4	47	47	40,2	49,2		10,00	
143025CG3	25	184	67	54	46	56	35	7,59	
143032CG3	32	188	67	64,5	49	59	25	7,05	
143040CG3	40	232	93	80	58	70	12	6,86	
143050CG3	50	260	93	94	70	83,5		8,65	
143063CG3	63	320	113	117	86	107	5	6,40	

**CHECK VALVE PE-PP/PVC FEMALE THREAD**  
**VALVULA ANTI RETORNO PE-PP/PVC ROSCA HEMBRA**  
**VANNE ANTI-RETOUR PE-PP/PVC FEMELLE À VISSER**



CODE	Dn	R	L1	L2	L4	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
144016CG3	16	1/2"	116,2	47	15	47	40,2	49,2	100	8,90	0,037
144020CG3	20	1/2"	116,2	47	15	47	40,2	49,2		8,90	
144025CG3	25	3/4"	145	67	16	54	46	56	35	7,20	
144032CG3	32	1"	151	67	19	64,5	49	59	25	6,10	
144040CG3	40	1 1/4"	189	93	21	80	58	70	12	6,20	
144050CG3	50	1 1/2"	206,5	93	22	94	70	83,5		7,29	
144063CG3	63	2"	251	113	26	117	86	107	5	5,30	

**CHECK VALVE PE-PP/PVC FEMALE TO GLUE**  
**VALVULA ANTI RETORNO PE-PP/PVC ENCOLAR HEMBRA**  
**VANNE ANTI-RETOUR PE-PP/PVC FEMELLE À COLER**



CODE	Dn	dn	L1	L2	L4	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
144016CXG3	16	16	116,2	47	15	47	40,2	49,2	100	8,90	0,037
144020CXG3	20	20	116,2	47	15	47	40,2	49,2		8,90	
144025CXG3	25	25	145	67	16	54	46	56	35	7,20	
144032CXG3	32	32	151	67	19	64,5	49	59	25	6,10	
144040CXG3	40	40	189	93	21	80	58	70	12	6,20	
144050CXG3	50	50	206,5	93	22	94	70	83,5		7,29	
144063CXG3	63	63	251	113	26	117	86	107	5	5,30	

**CHECK VALVE PE-PP/PVC MALE THREAD**  
**VALVULA ANTI RETORNO PE-PP/PVC ROSCA MACHO**  
**VANNE ANTI-RETOUR PE-PP/PVC MALE À VISSER**

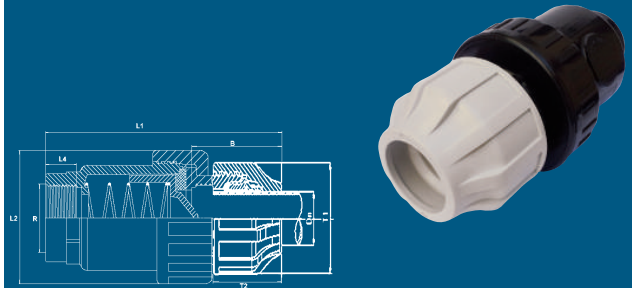


CODE	Dn	R	L1	L2	L4	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
145016CG3	16	1/2"	132,2	47	15	47	40,2	49,2	100	9,20	0,037
145020CG3	20	1/2"	132,2	47	15	47	40,2	49,2		9,20	
145025CG3	25	3/4"	163,5	67	16,5	54	46	56	35	7,52	
145032CG3	32	1"	166	67	19	64,5	49	59	25	6,33	
145040CG3	40	1 1/4"	206,5	93	19	80	58	70	12	6,43	
145050CG3	50	1 1/2"	223	93	21	94	70	83,5		7,34	
145063CG3	63	2"	268	113	26	117	86	107	5	5,37	



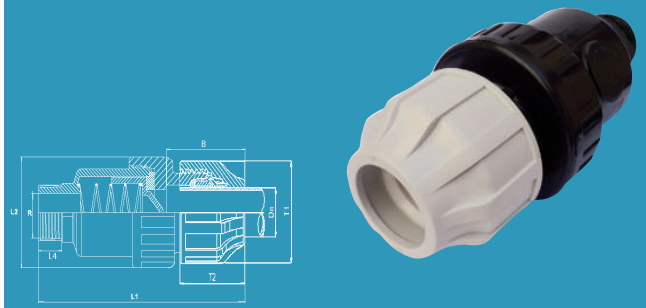
CODE	Dn	R	L1	L2	L4	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
148016CFG3	16	1/2"	105,2	47	15	47	40,2	49,2	120	7,16	0,037
148020CFG3	20	1/2"	105,2	47	15	47	40,2	49,2		7,16	
148025CFG3	25	3/4"	133	67	16	54	46	56	60	9,62	
148032CFG3	32	1"	139	67	19	64,5	49	59	50	8,50	
148040CFG3	40	1 1/4"	172	93	21	80	58	70	15	5,75	
148050CFG3	50	1 1/2"	189,5	93	22	94	70	83,5		6,22	
148063CFG3	63	2"	227	113	26	117	86	107	8	5,58	

**CHECK VALVE UNIBLOCK PE-PP/PVC FEMALE THREAD**  
**VALVULA ANTI RETORNO UNIBLOCK PE-PP/PVC ROSCA HEMBRA**  
**VANNE ANTI-RETOUR UNIBLOCK PE-PP/PVC FEMELLE À VISSER**



CODE	Dn	R	L1	L2	L4	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
149016CMG3	16	1/2"	111,2	47	15	47	40,2	49,2	120	7,16	0,037
149020CMG3	20	1/2"	111,2	47	15	47	40,2	49,2		7,16	
149025CMG3	25	3/4"	142	67	16	54	46	56	60	9,62	
149032CMG3	32	1"	146	67	19	64,5	49	59	50	8,50	
149040CMG3	40	1 1/4"	182	93	21	80	58	70	15	5,75	
149050CMG3	50	1 1/2"	199,5	93	22	94	70	83,5		6,22	
149063CMG3	63	2"	238	113	26	117	86	107	8	5,58	

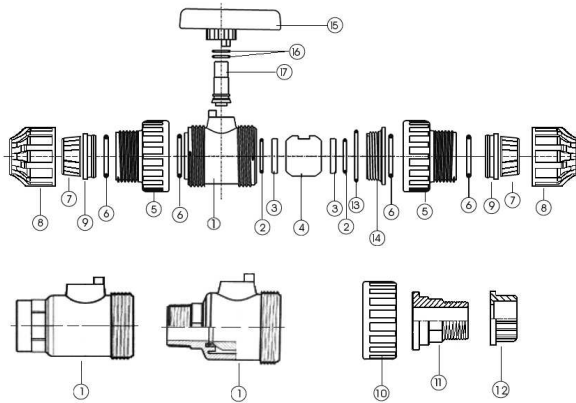
**CHECK VALVE UNIBLOCK PE-PP/PVC MALE THREAD**  
**VALVULA ANTI RETORNO UNIBLOCK PE-PP/PVC ROSCA MACHO**  
**VANNE ANTI-RETOUR UNIBLOCK PE-PP/PVC MACHO À VISSER**



**CHARACTERISTICS  
COMPRESSION VALVES**

**CARACTERÍSTICAS  
VALVULAS DE COMPRESIÓN**

**CARACTERISTIQUES  
VANNES À COMPRESION**



**WORKING CONDITIONS**  
Working pressure: 16 Atm

**CONDICIONES DE TRABAJO**  
Presión nominal: 16 Atm

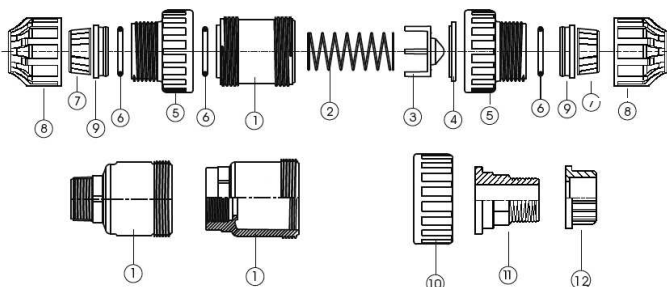
**CONDITIONS DE TRAVAIL**  
Pression nominale: 16 Atm

N°	Part Componente Pièce	Material Material Matériau
1	body / cuerpo / corp	pph 2150
2	o-ring / junta / joint	epdm
3	ball backup / apollo de bola / appui de la sphère	tpe teflon
4	ball / bola / sphère	pph 2150
5	double nut / tuercas doble / double écrou	pph 2150
6	o-ring / junta / joint	nitrile rubber
7	grip ring / bicono / bague de crantage	polyacetal resin
8	compression nut / tuercas de compresión / écrou de serrage	polypropylene
9	compression ring / casquillo / bague de compresion	polypropylene
10	simple nut / tuercas simple / écrou simple	pph 2150
11	male adapter / rosca macho / adaptateur male	polypropylene
12	female adapter / adaptator hembra / adaptateur femelle	polypropylene
13	o-ring / junta / joint	epdm
14	threaded cap / casquillo de ajuste / bague fileté	pph 2150
15	lever / maneta / poignée	pph 2150
16	o-ring / junta / joint	epdm
17	stem / eje / axe	pph 2150

**CHARACTERISTICS CHECK  
COMPRESSION VALVES**

**CARACTERÍSTICAS VALVULAS DE  
COMPRESIÓN ANTI-RETORNO**

**CARACTERISTIQUES VANNES À  
COMPRESION ANTI-RETOUR**



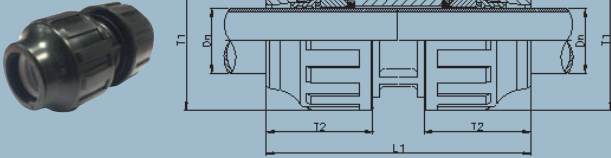
**WORKING CONDITIONS**  
Working pressure: 10 Atm  
Minimum working pressure: 0.5-0.8 Bar

**CONDICIONES DE TRABAJO**  
Presión nominal: 10 Atm  
Presión mínima de trabajo: 0.5-0.8 Bar

**CONDITIONS DE TRAVAIL**  
Pression nominale: 10 Atm  
Pression minimale de fonctionnement: 0.5-0.8 Bar

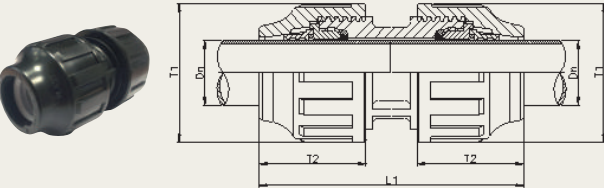
N°	Part Componente Pièce	Material Material Matériau
1	body / cuerpo / corp	pph 2150
2	spring / muelle / ressort	inox steel
3	cone / cono / cône	pvc u
4	cone o-ring / junta de cono / joint de cône	epdm
5	double nut / tuercas doble / double écrou	pph 2150
6	o-ring / junta / joint	nitrile rubber
7	grip ring / bicono / bague de crantage	polyacetal resin
8	compression nut / tuercas de compresión / écrou de serrage	polypropylene
9	compression ring / casquillo / bague de compresion	polypropylene
10	simple nut / tuercas simple / écrou simple	pph 2150
11	male adapter / rosca macho / adaptateur male	polypropylene
12	female adapter / adaptator hembra / adaptateur femelle	polypropylene

**MANGUITO IGUAL**  
**COUPLING**  
**MANCHON**



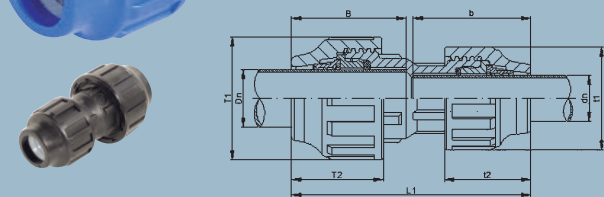
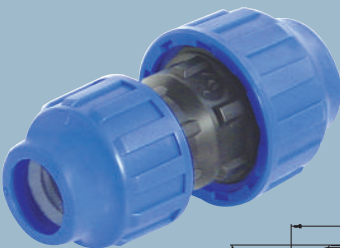
CODE	Dn	L1	T1	T2	B		WEIGHT x BOX KG	VOLUME x BOX m <sup>3</sup>
701016A/N	16	106	47	40,2	51	50	3,80	0,019
701020A/N	20	106	47	40,2	51		3,55	
701025A/N	25	118	54	46	57		40	
701032A/N	32	126	64,5	49	61	25	3,66	0,036
701040A/N	40	157	80	58	76	13	3,26	
701050A/N	50	189	94	70	92	15	6,09	0,074
701063A/N	63	216	117	86	103,5	17	13,04	
701075A/N	75	265,5	126	108	129	14	14,72	
701090A/N	90	288	146	117,5	142	8	13,10	
701110A/N	110	353	176,5	139	172,5	4	11,53	

**MANGUITO DE REPARACIÓN**  
**SLIP COUPLING**  
**MANCHON DE RÉPARATION**



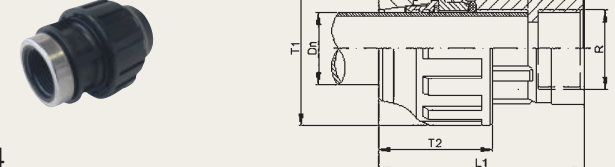
CODE	Dn	L1	T1	T2		WEIGHT x BOX KG	VOLUME x BOX m <sup>3</sup>
725050A/N	50	189	94	70	15	6,09	0,036
725063A/N	63	216	117	86	17	13,04	0,074
725075A/N	75	265,5	126	108	14	14,72	
725090A/N	90	288	146	117,5	8	13,10	
725110A/N	110	353	176,5	139	4	11,53	

**MANGUITO REDUCIDO**  
**REDUCING COUPLING**  
**MANCHON RÉDUIT**



CODE	Dn	dn	L1	T1	T2	i1	i2	B	b		WEIGHT x BOX KG	VOLUME x BOX m <sup>3</sup>
702020A/N	20	16	105	47	40,2	47	40,2	51,5	50	45	3,31	0,019
702024A/N	25	16	112	54	46	47	40,2	57,2	51		3,77	
702025A/N		20	112	54	46	47	40,2	57,2	51	3,68		
702031A/N	32	20	115	64,5	49	47	40,2	60	54,5	30	3,27	
702032A/N		25	121	64,5	49	54	46	60,5	57	3,59		
702039A/N	40	25	137	80	58	54	46	75,5	57	18	3,18	
702040A/N		32	147	80	58	64,5	49	82	60,5	3,58		
702049A/N	50	32	155,5	94	70	64,5	49	91	60,5	22	6,37	
702050A/N		40	172	94	70	80	58	92,5	75,5	20	6,56	
702062A/N	63	40	193	117	86	80	58	104	78	20	10,59	
702063A/N		50	203,5	117	86	94	70	104	93,5	11,91		
702075A/N	75	63	249	126	108	117	86	135	108	14	13,08	0,074
702090A/N	90	75	263	146	117,5	126	108	148	138	8	11,14	
702110A/N	110	90	335	176,5	139	146	117,5	180	158	5	11,73	

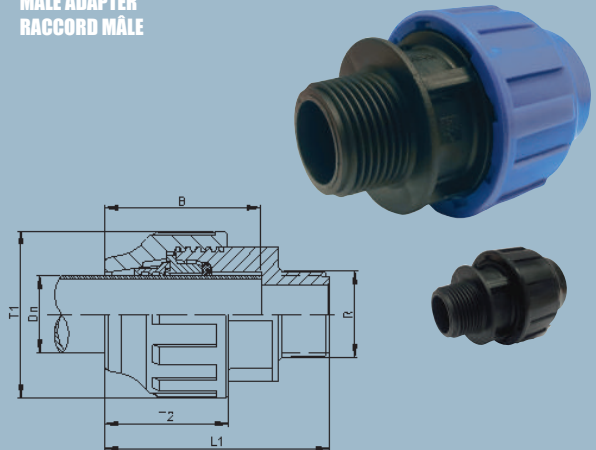
**ENLACE ROSCA HEMBRA**  
**FEMALE ADAPTER**  
**RACCORD FEMELLE**



CODE	Dn	R	L1	T1	T2	B		WEIGHT x BOX KG	VOLUME x BOX m <sup>3</sup>
703016A/N	16	1/2"	72,5	47	40,2	52	86	4,68	0,019
703017A/N		3/4"	72,5	47	40,2	52			
703020A/N	20	1/2"	72,5	47	40,2	52	90	5,00	
703022A/N		3/4"	72,5	47	40,2	52			
703024A/N	25	1/2"	81	54	46	60	60	3,84	
703025A/N		3/4"	82	54	46	60			
703027A/N	32	1"	85	54	46	60	56	4,80	
703030A/N		1/2"	88	64,5	49	65,5			
703031A/N	32	3/4"	88	64,5	49	66	35	3,40	
703032A/N		1"	88	64,5	49	64			
703033A/N	40	1 1/4"	94	64,5	49	70	22	4,00	
703039A/N		1"	106	80	58	78			
703040A/N	50	1 1/4"	106	80	58	78	25	6,94	
703041A/N		1 1/2"	106	80	58	78			
703050A/N	63	1 1/2"	118	94	70	89	26	14,44	
703063A/N		2"	145	117	86	109			
703074A/N	75	2"	169	126	108	132	20	12,95	
703075A/N		2 1/2"	169	126	108	132			
703090A/N	90	3"	184	146	117,5	146	12	12,49	0,074
703110A/N	110	4"	219	176,5	139	176	6	9,96	

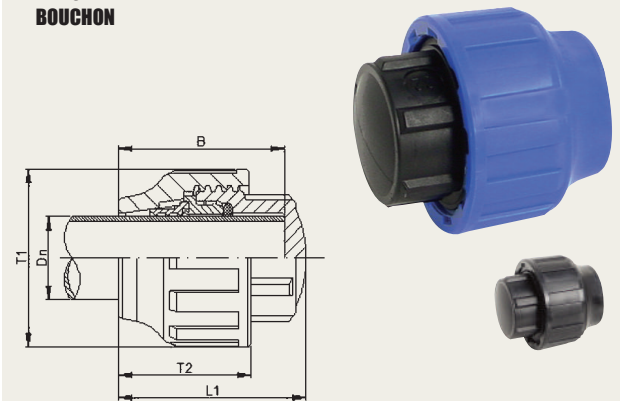
CODE	Dn	L1	L2	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
704016A/N	16	1/2"	71	47	40,2	49,5	90	3,76	0,019
704017A/N		3/4"	71,5	47	40,2	50,5		3,80	
704020A/N		1/2"	72	47	40,2	52		3,58	
704021A/N	20	3/4"	72,5	47	40,2	52,5	60	3,57	0,019
704024A/N		1/2"	79	54	46	57,5		3,06	
704025A/N		3/4"	80,5	54	46	59		3,16	
704026A/N	25	1"	83	54	46	59	45	3,24	0,019
704031A/N		3/4"	84	64,5	49	61,5		3,56	
704032A/N		1"	86,5	64,5	49	61		3,72	
704033A/N	32	1 1/4"	87,5	64,5	49	61,5	23	3,89	0,037
704038A/N		3/4"	106	80	58	76,5		3,02	
704039A/N		1"	105	80	58	71		3,19	
704040A/N	40	1 1/4"	104,5	80	58	76	22	3,32	0,074
704041A/N		1 1/2"	105	80	58	75		3,30	
704049A/N		1 1/4"	118	94	70	91,5		6,60	
704050A/N	50	1 1/2"	121	94	70	91,5	30	6,81	0,037
704051A/N		2"	122	94	70	92		6,14	
704062A/N		1 1/2"	137	117	86	102,5		12,79	
704063A/N	63	2"	139	117	86	103,5	30	12,79	0,074
704064A/N		2 1/2"	137,5	117	86	107,5		12,88	
704074A/N		2"	180,5	126	108	141,5		12,59	
704075A/N	75	2 1/2"	184	126	108	143,5	20	12,25	0,074
704076A/N		3"	182	126	108	141,5		12,25	
704090A/N		3"	200	146	117,5	157,5		11,50	
704110A/N	110	4"	230,5	176,5	139	176	6	10,00	

**ENLACE ROSCA MACHO**  
**MALE ADAPTER**  
**RACCORD MÂLE**



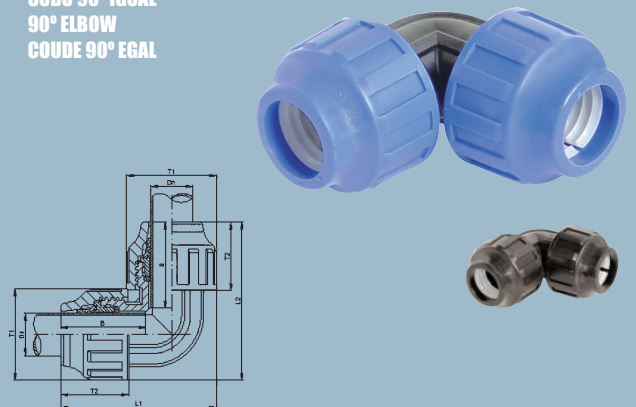
CODE	Dn	L1	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
705016A/N	16	55,5	47	40,2	50,5	125	4,97	0,019
705020A/N	20	56,5	47	40,2	50,5		4,71	
705025A/N	25	62,5	54	46	56		75	
705032A/N	32	69	64,5	49	60,5	50	3,96	0,037
705040A/N	40	86	80	58	76	24	3,24	
705050A/N	50	100,6	94	70	91	30	6,56	
705063A/N	63	118	117	86	105,5	34	14,23	0,074
705075A/N	75	158,5	126	108	142	23	16,42	
705090A/N	90	171	146	117,5	156,5	16	15,51	
705110A/N	110	195,5	176,5	139	181	8	13,33	

**TAPON**  
**END CAP**  
**BOUCHON**



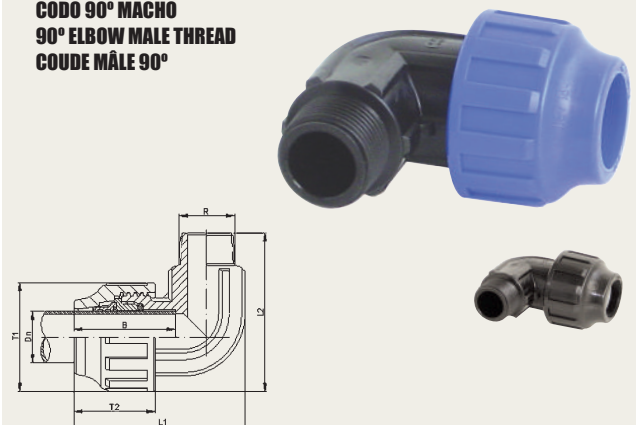
CODE	Dn	L1	L2	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
706016A/N	16	88,5	88,5	47	40,2	53	45	3,76	0,019
706020A/N	20	90	90	47	40,2	53		3,58	
706025A/N	25	102	102	54	46	59	30	3,04	0,037
706032A/N	32	111,5	111,5	64,5	49	61	20	3,26	
706040A/N	40	138,5	138,5	80	58	76	10	2,83	
706050A/N	50	166	166	94	70	91	12	5,45	0,074
706063A/N	63	197	197	117	86	105,5	14	12,65	
706075A/N	75	235	235	126	108	123	9	10,76	
706090A/N	90	267	267	146	117,5	145	6	11,68	
706110A/N	110	322	322	176,5	139	175,5	3	10,04	

**CODO 90° IGUAL**  
**90° ELBOW**  
**COUDE 90° EGAL**



CODE	Dn	R	L1	L2	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
707016A/N	16	1/2"	80,5	70,5	47	40,2	51	70	4,00	0,019
707020A/N	20	1/2"	82	67,5	47	40,2	53		3,74	
707021A/N		3/4"	82,5	67	47	40,2	53		3,74	
707024A/N	25	1/2"	92	79	54	46	58,5	40	3,09	0,019
707025A/N		3/4"	93	74,5	54	46	58,5		2,84	
707026A/N		1"	92	81	54	46	59		2,84	
707031A/N	32	3/4"	105,5	83,5	64,5	49	60,5	30	3,90	0,037
707032A/N		1"	102,5	92,5	64,5	49	61		3,81	
707033A/N		1 1/4"	104	90	64,5	50	60,5		3,90	
707039A/N	40	1"	125,5	105	80	58	75,5	15	3,01	0,074
707040A/N		1 1/4"	127	106	80	58	76		3,01	
707050A/N		50	11/2"	153	128	94	70		91,5	
707063A/N	63	2"	176	141	117	86	100,5	20	12,68	0,074

**CODO 90° MACHO**  
**90° ELBOW MALE THREAD**  
**COUDE MÂLE 90°**



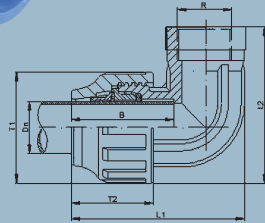
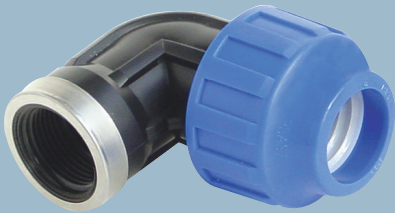
## ACCESORIOS PP DE COMPRESIÓN

PP Compression fittings  
Raccord PP a compression

PLAST

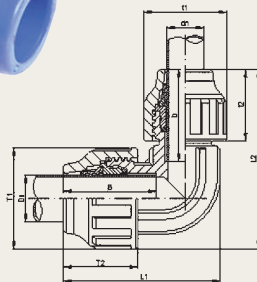
STP  
GROUP

### CODO 90° HEMBRA 90° ELBOW FEMALE THREAD COUDE FEMELLE 90°



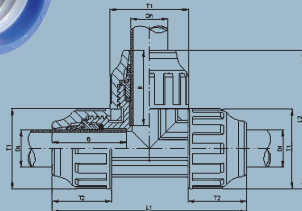
CODE	Dn	R	L1	L2	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
708016A/N	16	1/2"	80,5	66	47	40,2	50,5		4,37	0,019
708020A/N	20	1/2"	82	66	47	40,2	51,5	70	4,04	
708021A/N	20	3/4"	85,5	68	47	40,2	54		4,04	
708024A/N	25	1/2"	92,5	67	54	46	59	40	3,38	
708025A/N	25	3/4"	93	73,5	54	46	57,5		3,03	
708026A/N	25	1"	98	75,5	54	46	59		3,03	
708029A/N	25	1/2"	98	72	64,5	49	61,5		4,28	
708031A/N	32	3/4"	102,5	79	64,5	49	61,5	30	4,24	
708032A/N	32	1"	103	91	64,5	49	61,5		3,72	
708033A/N	32	1 1/4"	100	80	62	55	61,5		3,70	
708039A/N	40	1"	127	103	80	58	76,5	15	3,49	
708040A/N	40	1 1/4"	127,5	103	80	58	76,5		3,11	
708050A/N	50	1 1/2"	153	122	94	70	91,5	18	6,45	0,037
708063A/N	63	2"	175,5	142	117	86	100,5	20	13,41	0,074
708075A/N	75	2 1/2"	224,5	146,5	126	108	124	14	11,97	
708090A/N	90	3"	261	176,5	146	117,5	145	8	11,25	
708110A/N	110	4"	313	208	176,5	139	175	4	9,20	

### CODO 90° REDUCIDO 90° REDUCING ELBOW COUDE REDUIT 90°



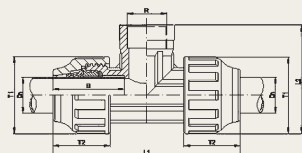
CODE	Dn	dn	L1	L2	T1	T2	t1	t2	B/b		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
726024A/N	25	16	97	99	54	46	47	40,2	59 / 52	35	3,55	0,019
726025A/N		20	97,5	99,5	54	46	47	40,2	59 / 53		3,55	
726032A/N	32	25	107	115	64,5	49	54	46	61 / 59	20	3,26	

### TE 90° IGUAL 90° TEE TÉ ÉGAL 90°



CODE	Dn	L1	L2	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
709016A/N	16	129	88,5	47	40,2	52,5	30	3,76	0,019
709020A/N	20	131,5	89	47	40,2	53		3,46	
709025A/N	25	147,5	101	54	46	58,5		20	
709032A/N	32	159	112,5	64,5	49	61	12	2,88	
709040A/N	40	198	139	80	58	76	5	2,46	
709050A/N	50	240,5	168	94	70	91	8	5,26	
709063A/N	63	280	198	117	86	106	8	12,85	0,074
709075A/N	75	343	233	126	108	122,5	5	11,11	
709090A/N	90	398,5	270	146	117,5	143	4	11,61	
709110A/N	110	465	321,5	176,5	139	175	1	4,80	

### TE 90° DERIVACIÓN HEMBRA 90° TEE FEMALE THREADED OFFTAKE TÉ À TARAUDAGE CENTRAL

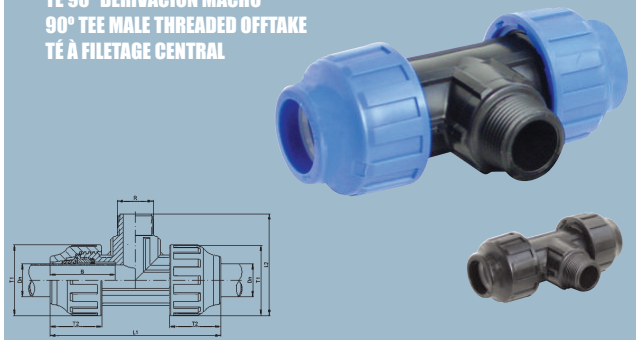


CODE	Dn	R	L1	L2	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
710016A/N	16	1/2"	129	66	47	40,2	52	40	4,21	0,019
710020A/N	20	1/2"	132	66	47	40,2	51		3,72	
710021A/N	20	3/4"	132	69	47	40,2	53		3,72	
710024A/N	25	1/2"	150	66,5	54	46	59	25	3,26	
710025A/N	25	3/4"	148	74	54	46	57		3,12	
710026A/N	25	1"	147	76	54	46	59		3,12	
710029A/N	25	1/2"	155	83	65	46	61		3,20	
710031A/N	32	3/4"	160	77,5	64,5	49	61	15	3,17	
710032A/N	32	1"	160	91	64,5	49	61		2,97	
710033A/N	32	1 1/4"	162	77,5	64	49	61		2,80	
710039A/N	40	1"	199	102,5	80	58	76,5	8	2,848	
710040A/N	40	1 1/4"	198,5	102	80	58	76	8	2,98	
710050A/N	50	1 1/2"	240,5	122,5	94	70	91,5	10	5,76	0,037
710062A/N	63	1 1/2"	269	143,5	117	86	100	11	11,60	0,074
710063A/N	63	2"	269	143,5	117	86	100		11,59	
710075A/N	75	2 1/2"	345	148	126	108	122,5	8	14,59	
710090A/N	90	3"	398	180	146	117,5	144,5	4	9,61	
710110A/N	100	4"	466	209	176,5	139	175,5	2	7,48	



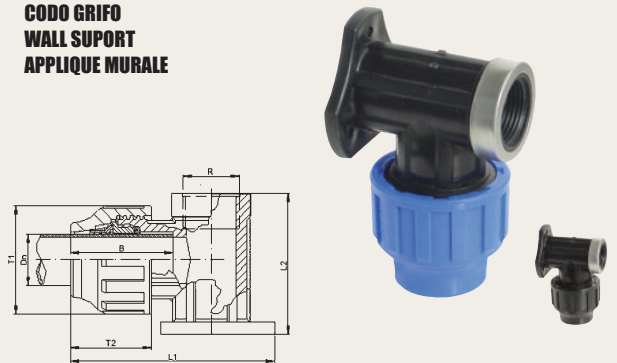
CODE	Dn	R	L1	L2	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
711016A/N	16	1/2"	129,5	71	47	40,2	52		3,63	0,019
711020A/N	20	1/2"	132	69,5	47	40,2	53	40	3,63	
711021A/N	20	3/4"	132	72	47	40,2	53		3,75	
711024A/N	25	1/2"	147,5	72	54	46	59	25	2,87	
711025A/N	25	3/4"	147,5	74,5	54	46	59		2,87	
711026A/N	25	1"	147,5	80	54	46	59		3,00	
711031A/N	32	3/4"	160	87,5	64,5	49	61	15	2,80	
711032A/N	32	1"	160	93	64,5	49	61,5		2,93	
711033A/N	32	1 1/4"	153	80	64,5	49	61		2,97	
711039A/N	40	1"	198,5	102,5	80	58	76	9	2,98	
711040A/N	40	1 1/4"	198	106	80	58	76		2,98	
711050A/N	50	1 1/2"	241	123,5	94	70	91,5	10	5,45	
711063A/N	63	2"	269	144	117	86	100	12	12,14	0,074

**TE 90° DERIVACIÓN MACHO**  
**90° TEE MALE THREADED OFFTAKE**  
**TÉ À FILETAGE CENTRAL**



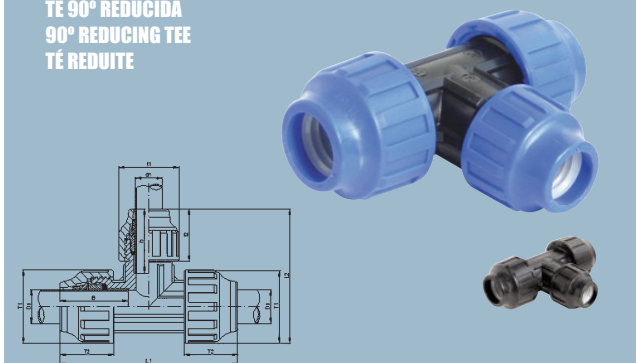
CODE	Dn	R	L1	L2	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
712016A/N	16	1/2"	90	63	47	40,2	50	50	3,30	0,019
712020A/N	20	1/2"	90,5	63	47	40,2	50,5		3,30	
712025A/N	25	3/4"	104	66	54	46	59	40	3,45	

**CODO GRIFO**  
**WALL SUPPORT**  
**APPLIQUE MURALE**



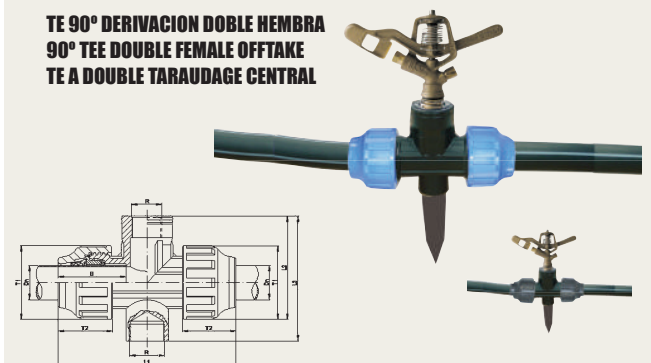
CODE	Dn	dn	L1	L2	T1	T2	t1	t2	B/b		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
713020A/N	20	16	132	88	47	40,2	47	40,2	53 / 53	20	2,80	0,019
713024A/N	25	16	147	99,5	54	40,2	47	40,2	58,5 / 51,35		2,92	
713025A/N	25	20	147	101	54	45,8	47	40,2	59 / 53		2,92	
713032A/N	32	25	159	120,5	64,5	48,5	54	46	61 / 59	12	2,75	
713040A/N	40	32	198,5	140	80	58	64,5	49	76 / 61,5	8	3,12	
713049A/N	50	32	240	148,5	94	70	64,5	49	91 / 64	8	5,23	
713050A/N	50	40	240,5	165	94	70	80	58	92 / 75,5		5,23	
713063A/N	63	50	268,5	188,5	117	85,5	94	70	99,5 / 90	8	9,32	0,074

**TE 90° REDUCIDA**  
**90° REDUCING TEE**  
**TÉ RÉDUITE**



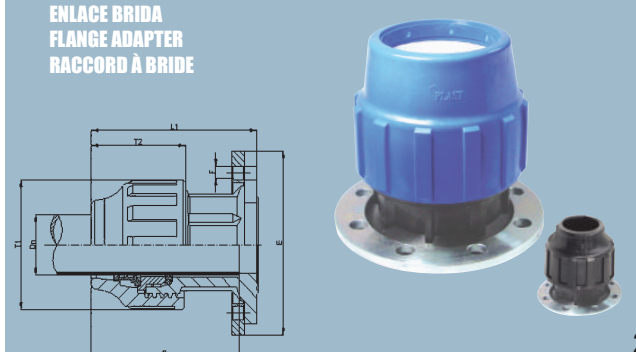
CODE	Dn	R	L1	L2	L3	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
710030A/N	32	3/4"	159,5	91,5	98,5	64,5	49	61	15	3,58	0,019

**TE 90° DERIVACION DOBLE HEMBRA**  
**90° TEE DOUBLE FEMALE OFFTAKE**  
**TÉ A DOUBLE TARAUDAGE CENTRAL**



CODE	Dn	FLANGE DN	L1	T1	T2	B	E	F		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
714050A/N	50	40	116	94	70	103,5	150	4x18	10	11,60	0,037
714063A/N	63	50	133	117	86	119	165	4x18	18	27,46	0,074
714075A/N	75	65	171	126	108	157	185	4x18	10	19,53	
714090A/N	90	75	182	146	117,5	165	200	8x18	8	18,87	
714110A/N	110	90	208	176,5	139	185	220	8x18	6	18,40	

**ENLACE BRIDA**  
**FLANGE ADAPTER**  
**RACCORD À BRIDE**



## VÁLVULAS PP CON CONEXIÓN PARA PE PN16

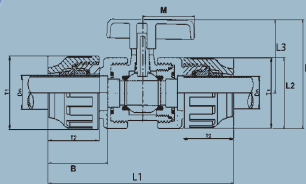
PP Valves for PE connection PN16

Vannes en PP pour connection PE PN16

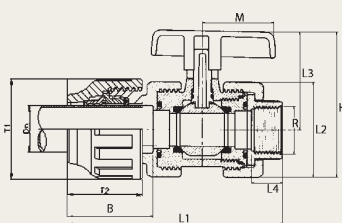
PLAST

STP  
GROUP

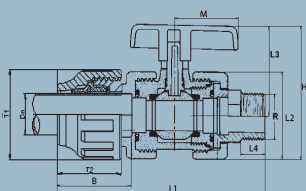
### CONEXIÓN PE-PE PE-PE COMPRESSION COMPRESSION PE-PE



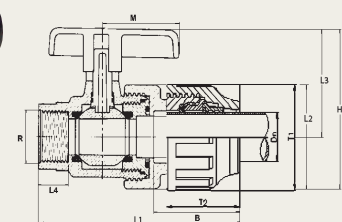
### CONEXIÓN PE · ROSCA HEMBRA BSP PE COMPRESSION · FEMALE BSP THREAD COMPRESSION PE · FEMELLE À VISSER BSP



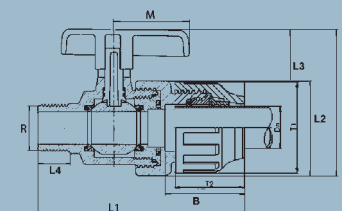
### CONEXIÓN PE · ROSCA MACHO BSP PE COMPRESSION · MALE BSP THREAD COMPRESSION PE MALE À VISSER BSP



### COMPRESIÓN PE · ROSCA HEMBRA BSP PE COMPRESSION · FEMALE BSP THREAD COMPRESSION PE · FEMELLE À VISSER BSP



### COMPRESIÓN PE · ROSCA MACHO BSP PE COMPRESSION · MALE BSP THREAD COMPRESSION PE · MALE À VISSER BSP



Cuerpo/Body/Corps: PP  
Asiento/Seats/Siege: TPE  
Juntas/O-rings/Joints: EPDM/NBR

CODE	Dn	L1	L2	L3	H	M	T1	T2	B	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
141016CA/CN	16	148,4	47	45	69	35	47	40,2	49,2	75	10,50
141020CA/CN	20	148,4	47	45	69	35	47	40,2	49,2		10,50
141025CA/CN	25	184	67	70	103	53	54	46	56	30	9,60
141032CA/CN	32	188	67	70	103	53	64,5	49	59	25	8,50
141040CA/CN	40	232	93	92	139	64	80	58	70	12	8,64
141050CA/CN	50	260	93	92	139	64	94	70	84	12	10,56
141063CA/CN	63	335	113	105	162	73	117	86	112	5	7,40

CODE	Dn	R	L1	L2	L3	L4	H	M	T1	T2	B	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
140016CXA/CXN	16	1/2"	116,2	47	45	15	69	35	47	40,2	49,2	75	10,50
140020CXA/CXN	20	1/2"	116,2	47	45	15	69	35	47	40,2	49,2		10,50
140025CXA/CXN	25	3/4"	145,5	67	70	16	103	53	54	46	56	30	9,60
140032CXA/CXN	32	1"	151,5	67	70	19	103	53	64,5	49	59	25	8,50
140040CXA/CXN	40	1 1/4"	189	93	92	21	139	64	80	58	70	12	8,64
140050CXA/CXN	50	1 1/2"	207	93	92	22	139	64	94	70	84	12	10,56
140063CXA/CXN	63	2"	261	113	105	26	162	73	117	86	112	5	7,40

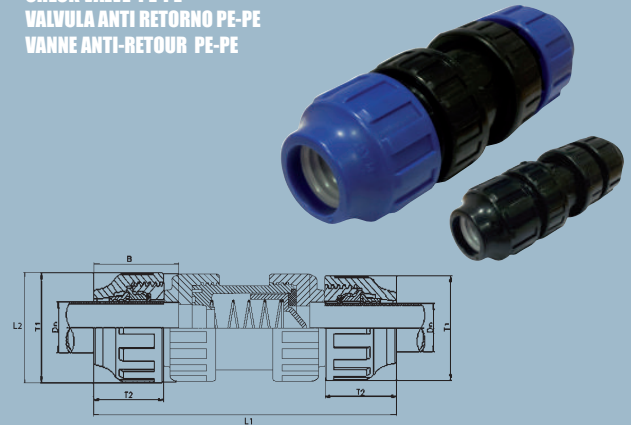
CODE	Dn	R	L1	L2	L3	L4	H	M	T1	T2	B	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
142016CA/CN	16	1/2"	132,2	47	45	15	69	35	47	40,2	49,2	75	10,50
142020CA/CN	20	1/2"	132,2	47	45	15	69	35	47	40,2	49,2		10,50
142025CA/CN	25	3/4"	164	67	70	16	103	53	54	46	56	30	9,60
142032CA/CN	32	1"	166,5	67	70	19	103	53	64,5	49	59	25	8,50
142040CA/CN	40	1 1/4"	206,5	93	92	21	139	64	80	58	70	12	8,64
142050CA/CN	50	1 1/2"	223,5	93	92	22	139	64	94	70	84	12	10,56
142063CA/CN	63	2"	278	113	105	26	162	73	117	86	112	5	7,40

CODE	Dn	R	L1	L2	L3	L4	H	M	T1	T2	B	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
146016CFA/CFN	16	1/2"	105,2	47	45	15	69	35	47	40,2	49,2	100	8,00
146020CFA/CFN	20	1/2"	105,2	47	45	15	69	35	47	40,2	49,2		8,00
146025CFA/CFN	25	3/4"	133	67	70	16	103	53	54	46	56		8,00
146026CFA/CFN		1"	133	67	70	19	103	53	54	49	59	40	10,20
146032CFA/CFN	32	1"	139	67	70	19	103	53	64,5	46	56		12,80
146040CFA/CFN	40	1 1/4"	172	93	92	21	139	64	80	58	70	15	9,60
146050CFA/CFN	50	1 1/2"	189,5	93	92	22	139	64	94	70	84		12,00
146063CFA/CFN	63	2"	227	113	105	26	162	73	117	86	112	8	7,84

CODE	Dn	R	L1	L2	L3	L4	H	M	T1	T2	B	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
147016CMA/CMN	16	1/2"	111,2	47	45	15	69	35	47	40,2	49,2	100	8,00
147020CMA/CMN	20	1/2"	111,2	47	45	15	69	35	47	40,2	49,2		8,00
147025CMA/CMN	25	3/4"	142	67	70	16	103	53	54	46	56		8,00
147026CMA/CMN		1"	142	67	70	19	103	53	54	49	59	40	10,20
147032CMA/CMN	32	1"	146	67	70	19	103	53	64,5	46	56		12,80
147040CMA/CMN	40	1 1/4"	182	93	92	21	139	64	80	58	70	15	9,60
147050CMA/CMN	50	1 1/2"	199,5	93	92	22	139	64	94	70	84		12,00
147063CMA/CMN	63	2"	238	113	105	26	162	73	117	86	112	8	7,84

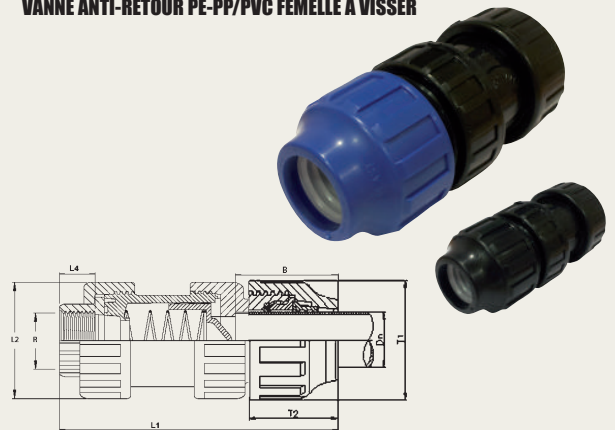
CODE	Dn	L1	L2	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
143016CA/CN	16	148,4	47	47	40,2	49,2	100	10,00	0,037
143020CA/CN	20	148,4	47	47	40,2	49,2		10,00	
143025CA/CN	25	184	67	54	46	56	35	7,59	
143032CA/CN	32	188	67	64,5	49	59	25	7,05	
143040CA/CN	40	232	93	80	58	70	12	6,86	
143050CA/CN	50	260	93	94	70	83,5		8,65	
143063CA/CN	63	320	113	117	86	107	5	6,40	

**CHECK VALVE PE-PE**  
**VALVULA ANTI RETORNO PE-PE**  
**VANNE ANTI-RETOUR PE-PE**



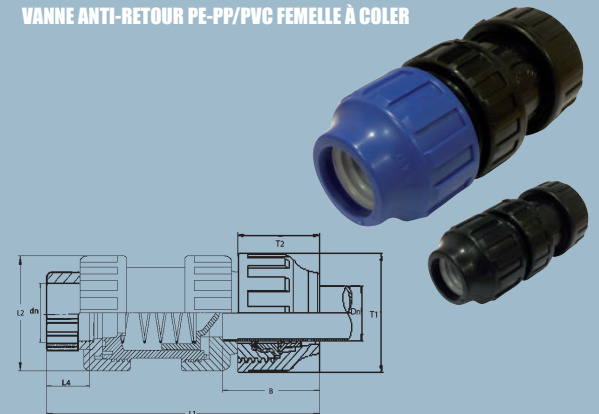
CODE	Dn	R	L1	L2	L4	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
144016CA/CN	16	1/2"	116,2	47	15	47	40,2	49,2	100	8,90	0,037
144020CA/CN	20	1/2"	116,2	47	15	47	40,2	49,2		8,90	
144025CA/CN	25	3/4"	145	67	16	54	46	56	35	7,20	
144032CA/CN	32	1"	151	67	19	64,5	49	59	25	6,10	
144040CA/CN	40	1 1/4"	189	93	21	80	58	70	12	6,20	
144050CA/CN	50	1 1/2"	206,5	93	22	94	70	83,5		7,29	
144063CA/CN	63	2"	251	113	26	117	86	107	5	5,30	

**CHECK VALVE PE-PP/PVC FEMALE THREAD**  
**VALVULA ANTI RETORNO PE-PP/PVC ROSCA HEMBRA**  
**VANNE ANTI-RETOUR PE-PP/PVC FEMELLE À VISSER**



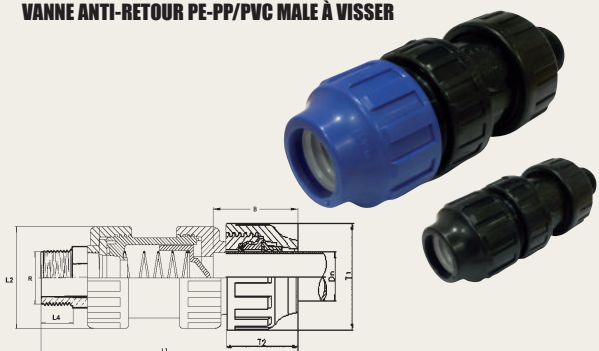
CODE	Dn	dn	L1	L2	L4	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
144016CXA/CXN	16	16	116,2	47	15	47	40,2	49,2	100	8,90	0,037
144020CXA/CXN	20	20	116,2	47	15	47	40,2	49,2		8,90	
144025CXA/CXN	25	25	145	67	16	54	46	56	35	7,20	
144032CXA/CXN	32	32	151	67	19	64,5	49	59	25	6,10	
144040CXA/CXN	40	40	189	93	21	80	58	70	12	6,20	
144050CXA/CXN	50	50	206,5	93	22	94	70	83,5		7,29	
144063CXA/CXN	63	63	251	113	26	117	86	107	5	5,30	

**CHECK VALVE PE-PP/PVC FEMALE TO GLUE**  
**VALVULA ANTI RETORNO PE-PP/PVC ENCOLAR HEMBRA**  
**VANNE ANTI-RETOUR PE-PP/PVC FEMELLE À COLER**



CODE	Dn	R	L1	L2	L4	T1	T2	B		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
145016CA/CN	16	1/2"	132,2	47	15	47	40,2	49,2	100	9,20	0,037
145020CA/CN	20	1/2"	132,2	47	15	47	40,2	49,2		9,20	
145025CA/CN	25	3/4"	163,5	67	16,5	54	46	56	35	7,52	
145032CA/CN	32	1"	166	67	19	64,5	49	59	25	6,33	
145040CA/CN	40	1 1/4"	206,5	93	21	80	58	70	12	6,43	
145050CA/CN	50	1 1/2"	223	93	21	94	70	83,5		7,34	
145063CA/CN	63	2"	268	113	26	117	86	107	5	5,37	

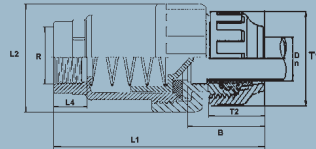
**CHECK VALVE PE-PP/PVC MALE THREAD**  
**VALVULA ANTI RETORNO PE-PP/PVC ROSCA MACHO**  
**VANNE ANTI-RETOUR PE-PP/PVC MALE À VISSER**



**COMPRESSION CHECK VALVES PN10**  
**Válvulas de Compresión Anti-retorno PN10**  
**Vannes à Compression Anti-retour PN10**

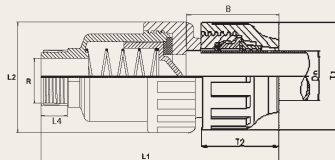


**CHECK VALVE UNIBLOCK PE-PP/PVC FEMALE THREAD**  
**VALVULA ANTI RETORNO UNIBLOCK PE-PP/PVC ROSCA HEMBRA**  
**VANNE ANTI-RETOUR UNIBLOCK PE-PP/PVC FEMELLE À VISSER**



CODE	Dn	R	L1	L2	L4	T1	T2	B	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
148016CFA/CFN	16	1/2"	105,2	47	15	47	40,2	49,2	120	7,16
148020CFA/CFN	20	1/2"	105,2	47	15	47	40,2	49,2		7,16
148025CFA/CFN	25	3/4"	133	67	16	54	46	56	60	9,62
148032CFA/CFN	32	1"	139	67	19	64,5	49	59	50	8,50
148040CFA/CFN	40	1 1/4"	172	93	21	80	58	70	15	5,75
148050CFA/CFN	50	1 1/2"	189,5	93	22	94	70	83,5		6,22
148063CFA/CFN	63	2"	227	113	26	117	86	107	8	5,58

**CHECK VALVE UNIBLOCK PE-PP/PVC MALE THREAD**  
**VALVULA ANTI RETORNO UNIBLOCK PE-PP/PVC ROSCA MACHO**  
**VANNE ANTI-RETOUR UNIBLOCK PE-PP/PVC MÂLE À VISSER**

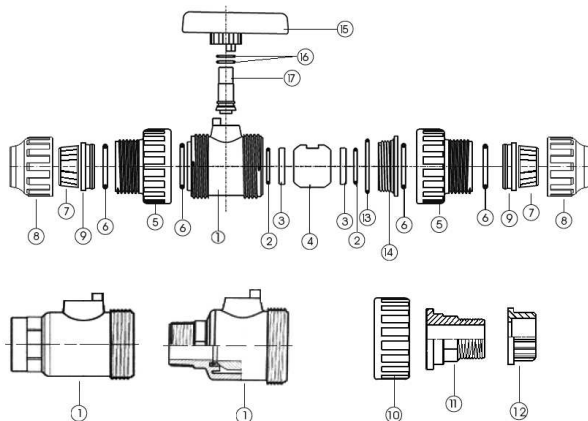


CODE	Dn	R	L1	L2	L4	T1	T2	B	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
149016CMA/CMN	16	1/2"	111,2	47	15	47	40,2	49,2	120	7,16
149020CMA/CMN	20	1/2"	111,2	47	15	47	40,2	49,2		7,16
149025CMA/CMN	25	3/4"	142	67	16	54	46	56	60	9,62
149032CMA/CMN	32	1"	146	67	19	64,5	49	59	50	8,50
149040CMA/CMN	40	1 1/4"	182	93	21	80	58	70	15	5,75
149050CMA/CMN	50	1 1/2"	199,5	93	22	94	70	83,5		6,22
149063CMA/CMN	63	2"	238	113	26	117	86	107	8	5,58

**CHARACTERISTICS  
COMPRESSION VALVES**

**CARACTERÍSTICAS  
VALVULAS DE COMPRESIÓN**

**CARACTERISTIQUES  
VANNES À COMPRESSION**



**WORKING CONDITIONS**  
Working pressure: 16 Atm

**CONDICIONES DE TRABAJO**  
Presión nominal: 16 Atm

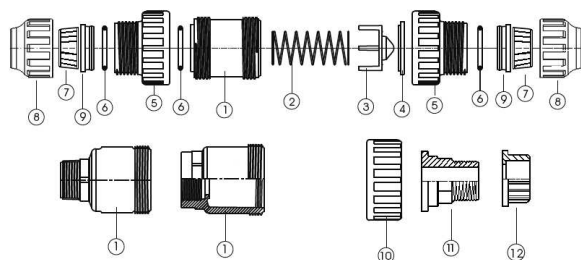
**CONDITIONS DE TRAVAIL**  
Pression nominale: 16 Atm

N°	Part Composante Pièce	Material Material Matériau
1	body / cuerpo / corp	pph 2150
2	o-ring / junta / joint	epdm
3	ball backup / apollo de bola / appui de la sphère	tpe teflon
4	ball / bola / sphère	pph 2150
5	double nut / tuerca doble / double écrou	pph 2150
6	o-ring / junta / joint	nitrile rubber
7	grip ring / bicono / bague de crantage	polyacetal resin
8	compression nut / tuerca de compresión / écrou de serrage	polypropylene
9	compression ring / casquillo / bague de compresion	polypropylene
10	simple nut / tuerca simple / écrou simple	pph 2150
11	male adapter / rosca macho / adaptateur male	polypropylene
12	female adapter / adaptador hembra / adaptateur femelle	polypropylene
13	o-ring / junta / joint	epdm
14	threaded cap / casquillo de ajuste / bague fileté	pph 2150
15	lever / maneta / poignée	pph 2150
16	o-ring / junta / joint	epdm
17	stem / eje / axe	pph 2150

**CHARACTERISTICS CHECK  
COMPRESSION VALVES**

**CARACTERÍSTICAS VALVULAS DE  
COMPRESIÓN ANTI-RETORNO**

**CARACTERISTIQUES VANNES À  
COMPRESSION ANTI-RETOUR**



**WORKING CONDITIONS**  
Working pressure: 10 Atm  
Minimum working pressure: 0.5-0.8 Bar

**CONDICIONES DE TRABAJO**  
Presión nominal: 10 Atm  
Presión mínima de trabajo: 0.5-0.8 Bar

**CONDITIONS DE TRAVAIL**  
Pression nominale: 10 Atm  
Pression minimale de fonctionnement: 0.5-0.8 Bar

N°	Part Composante Pièce	Material Material Matériau
1	body / cuerpo / corp	pph 2150
2	spring / muelle / ressort	inox steel
3	cone / cono / cône	pvc u
4	cone o-ring / junta de cono / joint de cône	epdm
5	double nut / tuerca doble / double écrou	pph 2150
6	o-ring / junta / joint	nitrile rubber
7	grip ring / bicono / bague de crantage	polyacetal resin
8	compression nut / tuerca de compresión / écrou de serrage	polypropylene
9	compression ring / casquillo / bague de compresion	polypropylene
10	simple nut / tuerca simple / écrou simple	pph 2150
11	male adapter / rosca macho / adaptateur male	polypropylene
12	female adapter / adaptador hembra / adaptateur femelle	polypropylene



**ACCESORIOS DE PP A COMPRESIÓN PARA TRANSICIONES.**

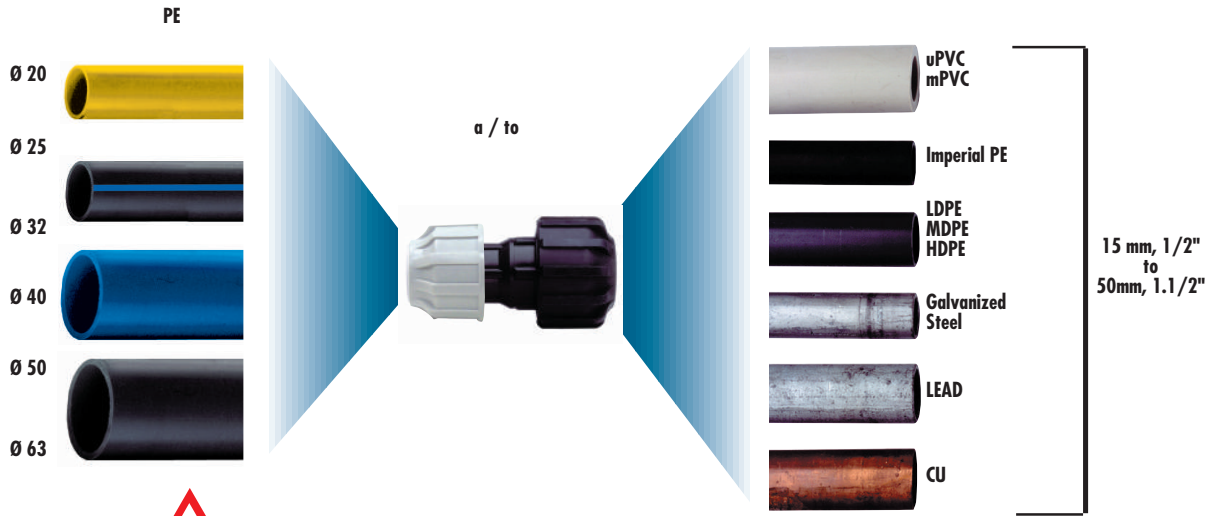
Transición de tuberías de polietileno en medidas métricas

**PP COMPRESSION FITTINGS FOR TRANSITIONS.**

Transition from polyethylene pipes in metric measures

**RACCORDS EN PP À COMPRESION POUR TRANSITIONS.**

Transición de tuyaues en polyéthylène en mesures métriques



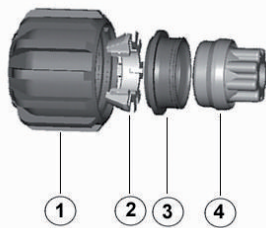
qualquier tuberia metálica o de plástico (15mm(1/2")- 50mm(1 1/2"))  
 any metallic or plastic pipe (15mm(1/2")- 50mm(1 1/2"))  
 n'importe quels tuyaux métalliques ou en plastique (15mm(1/2")-50mm(1 1/2"))

**KIT UNIVERSAL PN16 (PLOMO PN10)**

**UNIVERSAL KIT PN16 (LEAD PN10)**

**KIT UNIVERSAL PN16 (LEAD PN10)**

**WRAS**



N°	Part Composante Pièce	Material Matériau
1	compression nut / tuerca de compresión / écrou de serrage	polypropylene
2	slip-ring / bicono universal / bague de crantage universelle	polyacetal resin/stainless steel
3	compression ring / casquillo / bague de compression	polypropylene
4	universal rubber/junta universal/joint universal	nitrile rubber

Ideal para compañías de aguas por el ahorro de tiempo que supone.

It is perfect for water companies because this can save a lot of time.

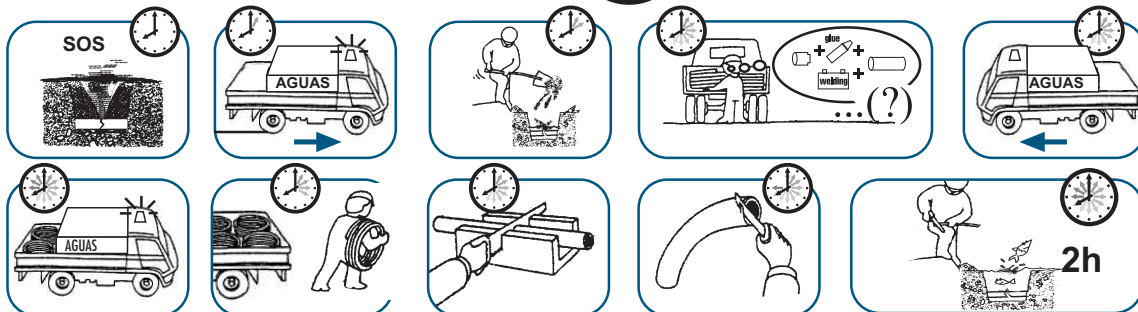
Ideal pour les compagnies des eaux pour l'importante économie de temps.

SIN / WITHOUT / SANS

tC PLAST



**2h**



CON / WITH / AVEC

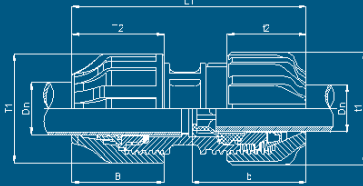
tC PLAST =



**17'**

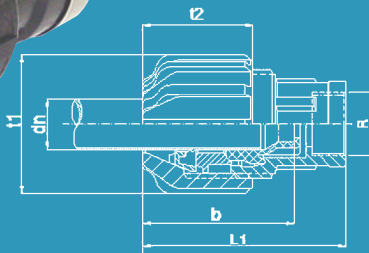


MANGUITO DE TRANSICIÓN UNIVERSAL  
UNIVERSAL TRANSITION COUPLING  
RACCORD DE TRANSITION UNIVERSEL



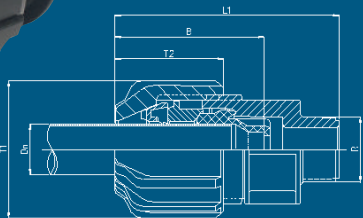
CODE	dn	Dn	L1 (max/min)	T1	T2	t1	t2	B	b (max)	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
716016	15-22 (3/8"-1/2")	16	109,5/116,5	47	40,2	55	44	51	58	45	4,65
716020		20	109,5/116,5	47	40,2	55	44	51	58	40	4,56
716025		25	115,5/122,5	54	46	55	44	57	58	40	4,49
716032		32	118,5/125,5	64,5	49	55	44	61	58	30	4,18
716040		40	134,5/141,5	80	58	55	44	76	58	18	3,58
717020	21-27 (1/2"-3/4")	20	112/119,5	47	40,2	64,5	49	51	61	30	3,95
717025		25	134/141,5	54	46	64,5	49	57	61	30	4,26
717032		32	123/130,5	64,5	49	64,5	49	61	61	25	4,22
717040		40	144/151,5	80	58	64,5	49	76	61	18	3,98
717050		50	152,5/160	94	70	64,5	49	92	61	18	4,10
718025	27-35 (3/4"-1")	25	124/138,5	54	46	80	55	57	74,5	18	3,96
718032		32	134/148,5	64,5	49	80	55	61	74,5	15	4,36
718040		40	144/158,5	80	58	80	55	76	74,5	15	4,42
718050		50	159/173,5	94	71	80	55	92	74,5	10	3,71
718063		63	180/194,5	117	86	80	55	103,5	74,5	10	5,46
719032	35-50 (1 1/4"-1 1/2")	32	147/164,5	64,5	49	95	85	61	108	18	5,21
719040		40	163,5/181	80	58	95	85	76	108	16	5,25
719050		50	180,5/198	94	71	95	85	92	108	12	4,87
719063		63	195/212,5	117	86	95	85	103,5	108	18	10,70

ENLACE ROSCA HEMBRA DE TRANSICIÓN UNIVERSAL  
UNIVERSAL TRANSITION FEMALE ADAPTER  
RACCORD FEMELLE DE TRANSITION UNIVERSEL



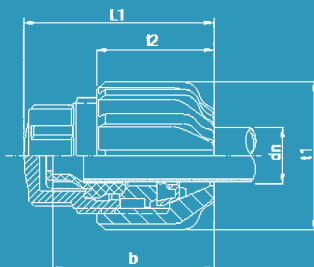
CODE	dn	R	L1 (max/min)	t1	t2	b (max)	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
720020	15-22 (3/8"-1/2")	1/2"	78,5/85,5	55	44	58	60	4,00
720021		3/4"	79,5/86,5	55	44	58	60	4,78
720022		1"	82,5/89,5	55	44	58	60	5,22
720025	21-27 (1/2"-3/4")	3/4"	85/92,5	64,5	46	61	35	4,39
720026		1"	85/92,5	64,5	46	61	35	4,59
720027		1 1/4"	91/98,5	64,5	46	61	35	4,83
720032	27-35 (3/4"-1")	1"	93/107,5	80	55	74,5	22	4,87
720033		1 1/4"	105/119,5	80	55	74,5	22	4,93
720034		1 1/2"	105/119,5	80	55	74,5	22	5,05
720041	35-50 (1 1/4"-1 1/2")	1 1/2"	126,5/144	95	85	108	18	6,48

ENLACE ROSCA MACHO DE TRANSICIÓN UNIVERSAL  
UNIVERSAL TRANSITION MALE ADAPTER  
RACCORD MÂLE DE TRANSITION UNIVERSEL



CODE	dn	R	L1 (max/min)	t1	t2	b (max)	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
721020	15-22 (3/8"-1/2")	1/2"	76,5/83,5	55	44	58	60	4,50
721021		3/4"	78/85	55	44	58	60	4,33
721022		1"	80,5/87,5	55	44	58	60	4,62
721025	21-27 (1/2"-3/4")	3/4"	81/88,5	64,5	46	61	35	3,56
721026		1"	83,5/90,5	64,5	46	61	45	4,91
721027		1 1/4"	84,5/92	64,5	46	61	45	5,00
721032	27-35 (3/4"-1")	1"	92/99,5	80	55	74,5	25	5,50
721033		1 1/4"	91,5/106	80	55	74,5	23	5,68
721034		1 1/2"	92/99,5	80	55	74,5	22	5,68
721040	35-50 (1 1/4"-1 1/2")	1 1/4"	109,5/127	95	85	108	22	4,16
721041		1 1/2"	112,5/130	95	85	108	22	3,86
721042		2"	113,5/131	95	85	108	22	3,74

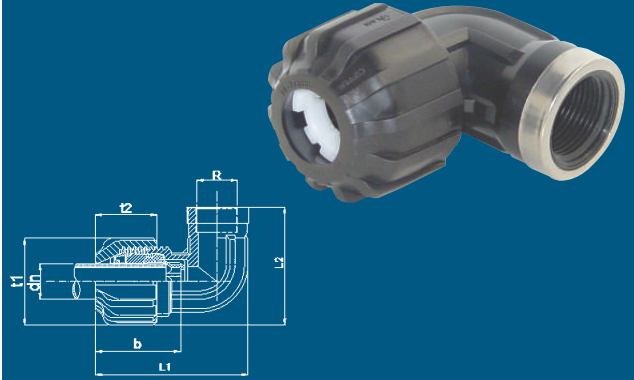
TAPÓN UNIVERSAL  
UNIVERSAL END CAP  
BOUCHON UNIVERSEL



CODE	dn	L1 (max/min)	t1	t2	b (max)	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
722020	15-22 (3/8"-1/2")	60/67	55	44	58	75	3,70
722025	21-27 (1/2"-3/4")	66/73,5	64,5	46	61	50	3,96
722032	27-35 (3/4"-1")	73/87,5	80	55	74,5	24	3,24
722040	35-50 (1 1/4"-1 1/2")	92,1/109,6	95	85	108	24	5,25

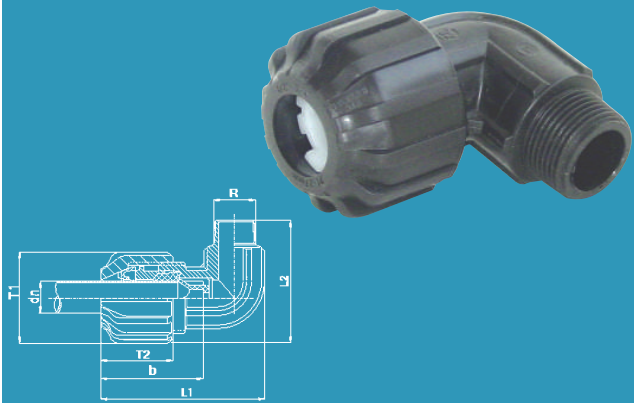
CODE	dn	R	L1 (max/min)	L2	t1	t2	b (max)	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
723220	15-22 (3/8"-1/2")	1/2"	90/97	68	55	44	58	40	3,38
723221		3/4"	90,5/97,5	74,5	55	44	58		3,82
723224	21-27 (1/2"-3/4")	1/2"	95/102,5	91	64,5	46	61	30	4,85
723225		3/4"	95/102,5	91	64,5	46	61		4,91
723226		1"	100/107	91	64,5	46	61		4,95
723227	27-35 (3/4"-1")	1 1/4"	95/102,5	91	64,5	46	61	15	4,98
723232		1"	114/128,5	103	80	55	74,5		3,49
723233		1 1/4"	119/136,5	103	80	55	74,5		3,11

**CODO 90° HEMBRA TRANSICIÓN UNIVERSAL**  
**90° ELBOW THREADED FEMALE**  
**COUDE 90° TRANSITION UNIVERSEL**



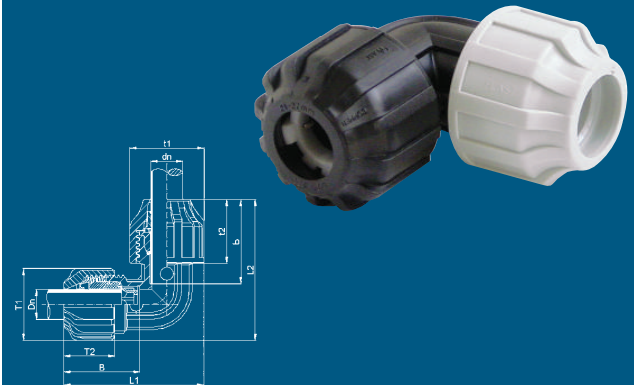
CODE	dn	R	L1 (max/min)	L2	t1	t2	b (max)	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
723120	15-22 (3/8"-1/2")	1/2"	89,5/96,5	80	55	44	58	40	3,52
723121		3/4"	90,5/97,5	75,5	55	44	58		3,62
723125	21-27 (1/2"-3/4")	3/4"	102,5/110	83,5	64,5	46	61	30	3,90
723126		1"	99,5/107	92,5	64,5	46	61		3,81
723127		1 1/4"	102,5/110,0	90	64,5	46	61		3,86
723132	27-35 (3/4"-1")	1"	112,5/127	105	80	55	74,5	15	2,97
723133		1 1/4"	114/128,5	105	80	55	74,5		3,01

**CODO 90° MACHO TRANSICIÓN UNIVERSAL**  
**UNIVERSAL TRANSITION 90° ELBOW THREADED MALE**  
**COUDE 90° MÂLE TRANSITION UNIVERSEL**



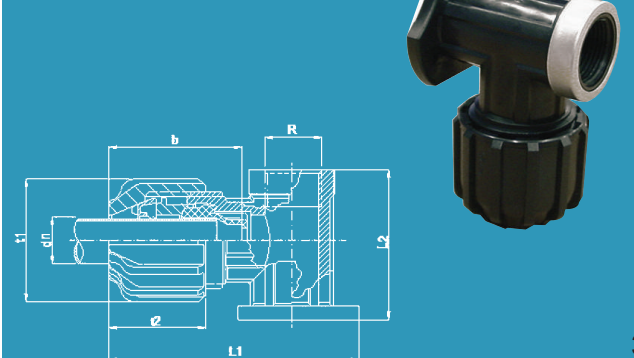
CODE	dn	Dn	L1 (max/min)	L2	T1	T2	t1	t2	B	b (max)	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
723019	15-22 (3/8"-1/2")	16	94,5/101,5	100	55	44	47	40,2	58	51	35	2,95
723020		20	95/102	100,5	55	44	47	40,2	58	51		3,55
723021		25	99,5/106,5	103	55	44	54	46	58	57	20	2,92
723025	21-27 (1/2"-3/4")	25	104/111,5	115	64,5	46	54	46	61	57	20	3,26
723026		32	108,5/116	111,5	64,5	46	64,5	49	61	61	12	3,40
723033	27-35 (3/4"-1")	40	125,5/140	138,5	80	55	80	58	74,5	76	12	3,52

**CODO 90° TRANSICIÓN UNIVERSAL**  
**UNIVERSAL TRANSITION 90° ELBOW**  
**COUDE 90° TRANSITION UNIVERSEL**

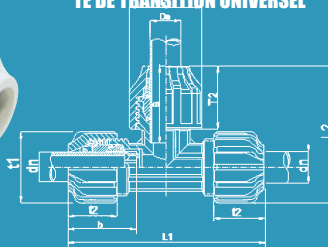
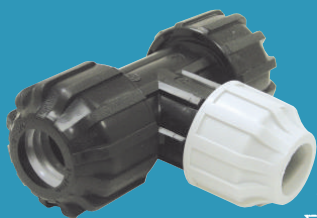


CODE	dn	R	L1 (max/min)	L2	t1	t2	b (max)	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
722121	15-22 (3/8"-1/2")	3/4"	107,5/95,5	66	55	44	58	35	3,50

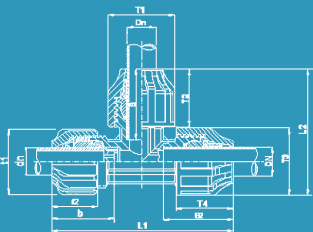
**CODO GRIFO UNIVERSAL**  
**UNIVERSAL WALL SUPPORT**  
**APPLIQUE MURALE UNIVERSEL**



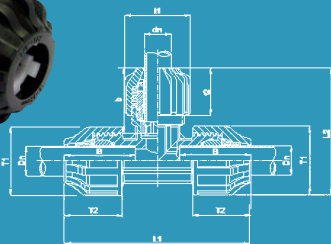
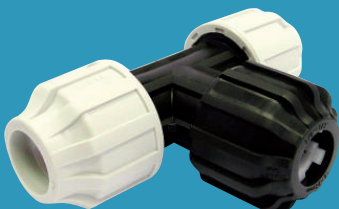
TE DE TRANSICIÓN UNIVERSAL  
UNIVERSAL TRANSITION 90° TEE  
TÉ DE TRANSITION UNIVERSEL



CODE	dn	Dn	L1 (max/min)	L2 (max/min)	T1	T2	t1	t2	B (max)	b (max)	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
724002	15-22 (3/8"-1/2")	25	142,5/156,5	46,8	54	46	55	44	58,5	58	18	3,42
724004		20	142,5/156,5	41,2	47	40,2	55	44	53	58		3,40
724006	21-27 (1/2"-3/4")	32	153/160,5	112,5	64,5	49	64,5	46	61	61	10	3,00
724008		25	153/160,5	120,5	54	46	64,5	46	59	61		2,80
724012		40	172,5/201,5	139	80	58	80	55	76	74,5	6	3,06
724014		32	172,5/201,5	140	64,5	48,5	80	55	61	74,5		2,94

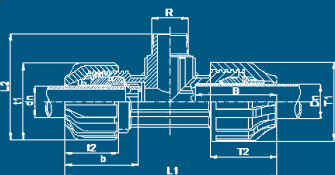


CODE	dn	Dn	L1 (max/min)	L2 (max/min)	T1/T3	T2/T4	t1	t2	b (max)	B2 (max)	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
724001	15-22 (3/8"-1/2")	25/25	145/152	45,8	54	46	55	44	58	58,5	18	3,40
724003		20/25	145/152	40,2	47/54	40,2/46	55	44	58	53/58,5		3,38
724005	21-27 (1/2"-3/4")	32/32	157/164,5	112,5	64,5	49	64,5	46	61	61	10	2,70
724007		25/32	157/164,5	120,5	54/64,5	46/49	64,5	46	61	59/61		2,50
724011	27-35 (3/4"-1")	40/40	185,5/200	139	80	58	80	55	74,5	76	6	2,76
724013		32/40	185,5/200	140	64,5/80	48,5/58	80	55	74,5	61/76		2,64



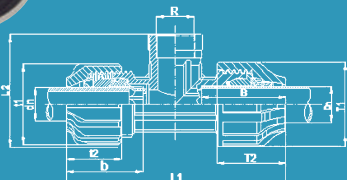
CODE	dn	Dn	L1 (max/min)	L2 (max/min)	T1	T2	t1	t2	B (max)	b (max)	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
724010	15-22 (3/8"-1/2")	32	159	118/125	64,5	48,5	55	44	61	58	10	2,49
724016	21-27 (1/2"-3/4")	40	198,5	137/144,5	80	58	64,5	46	76	61	8	3,36

TE MACHO DE TRANSICIÓN UNIVERSAL  
UNIVERSAL TRANSITION 90° TEE MALE OFFTAKE  
TÉ MÂLE DE TRANSITION UNIVERSEL



CODE	dn	R	Dn	L1 (max/min)	L2	T1	T2	t1	t2	B/b (max)	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
724220	15-22 (3/8"-1/2")	1/2"	25	145/152	71	47	40,2	55	44	51/58	25	3,37
724221		3/4"		145/152	73,5	54	46	55	44	57/58		3,37
724225		3/4"		157/164,5	87,5	64,5	49	64,5	46	61		3,03
724226	21-27 (1/2"-3/4")	1"	32	157/164,5	93	64,5	49	64,5	46	61	14	3,15
724227		1 1/4"		157/164,5	94,5	64,5	49	64,5	46	61		3,17
724233	27-35 (3/4"-1")	1 1/4"	40	185/199,5	106	80	58	80	55	76/74,5	8	3,05

TE HEMBRA DE TRANSICIÓN UNIVERSAL  
UNIVERSAL TRANSITION 90° TEE FEMALE OFFTAKE  
TÉ FEMELLE TRANSITION UNIVERSEL



CODE	dn	R	Dn	L1 (max/min)	L2	T1	T2	t1	t2	B/b (max)	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
724120	15-22 (3/8"-1/2")	1/2"	25	147,5/154,5	67,5	54	46	55	44	57/58	25	3,76
724121		3/4"		145,5/152,5	75	54	46	55	44	57/58		3,62
724124		1/2"		157/164,5	91	64,5	49	64,5	46			3,41
724125	21-27 (1/2"-3/4")	3/4"	32	157/164,5	91	64,5	49	64,5	46	61	14	3,38
724126		1"		157/164,5	91	64,5	49	64,5	46			3,19
724127		1 1/4"		157/164,5	89,5	64,5	49	64,5	46			3,03
724132	27-35 (3/4"-1")	1"	40	186/200,5	102,5	80	58	80	55	76/74,5	8	3,25
724133		1 1/4"		185,5/200	102	80	58	80	55	76/74,5		3,05



**Cuerpo/Body/Corps: PP**  
**Asiento/Seats/Siege: TPE**  
**Juntas/O-rings/Joins: EPDM/NBR**

CODE	dn	Dn	L1	L2	L3	H	M	T1	T2	t1	t2	B/b	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
141024CU	15-22 (3/8"-1/2")	25	182	67	70	103	53	54	46	55	44	56/54	30	6,43
141025CU	21-27 (1/2"-3/4")	25	187	67	70	103	53	54	46	55	49	56/59	25	6,43
141031CU	15-22 (3/8"-1/2")	32	183	67	70	103	53	64,5	49	55	44	59/54	25	6,03
141032CU	21-27 (1/2"-3/4")	32	188	67	92	139	64	64,5	49	64,5	49	59	12	6,37
141040CU	27-35 (3/4"-1")	40	229	93	92	139	64	80	58	80	55	70/67	12	6,27
141050CU	35-50 (1 1/4"-1 1/2")	50	275	93	92	139	64	94	70	95	85	84/99	8	8,00

CODE	dn	R	L1	L2	L3	L4	H	M	t1	t2	b	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
141025UM	15-22 (3/8"-1/2")	3/4"	143,5	67	70	16	103	53	55	44	54	30	6,43
141030UM	21-27 (1/2"-3/4")	1"	143,5	67	70	19	103	53	55	44	54	25	6,03
141031UM	15-22 (3/8"-1/2")	3/4"	151,5	67	70	16	139	64	64,5	49	59	25	6,20
141032UM	21-27 (1/2"-3/4")	1"	151,5	67	70	19	139	64	64,5	49	59	12	6,37
141040UM	27-35 (3/4"-1")	1 1/4"	186	93	92	21	139	64	80	55	67	12	6,15
141041UM	21-27 (1/2"-3/4")	1 1/2"	186	93	92	22	139	64	80	55	67	8	6,20
141049UM	35-50 (1 1/4"-1 1/2")	1 1/4"	222	93	92	21	139	64	95	85	99	8	7,80
141050UM	35-50 (1 1/4"-1 1/2")	1 1/2"	222	93	92	22	139	64	95	85	99	8	7,90

CODE	dn	R	L1	L2	L3	L4	H	M	t1	t2	b	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
142025UM	15-22 (3/8"-1/2")	3/4"	162	67	70	16,5	103	53	55	44	54	30	6,43
142030UM	21-27 (1/2"-3/4")	1"	162	67	70	19	103	53	55	44	54	25	6,03
142031UM	15-22 (3/8"-1/2")	3/4"	169,5	67	70	16,5	139	64	64,5	49	59	25	6,20
142032UM	21-27 (1/2"-3/4")	1"	169,5	67	70	19	139	64	64,5	49	59	12	6,37
142040UM	27-35 (3/4"-1")	1 1/4"	203,5	93	92	21	139	64	80	55	67	12	6,15
142041UM	21-27 (1/2"-3/4")	1 1/2"	203,5	93	92	21	139	64	80	55	67	8	6,20
142049UM	35-50 (1 1/4"-1 1/2")	1 1/4"	238,5	93	92	21	139	64	95	85	99	8	7,80
142050UM	35-50 (1 1/4"-1 1/2")	1 1/2"	238,5	93	92	21	139	64	95	85	99	8	7,90

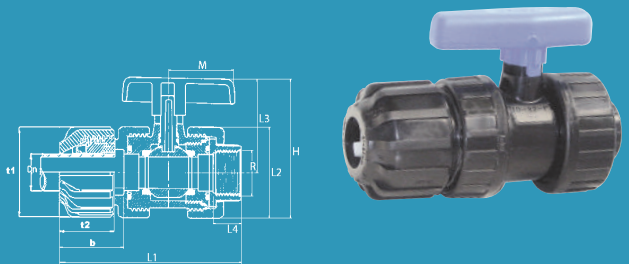
CODE	dn	R	L1	L2	L3	L4	H	M	t1	t2	b	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
146020UF	15-22 (3/8"-1/2")	3/4"	131	67	70	16	103	53	55	44	54	30	6,12
146025UF	21-27 (1/2"-3/4")	1"	139	67	70	19	103	64	64,5	49	59	25	8,16
146032UF	27-35 (3/4"-1")	1 1/4"	169	93	92	21	139	64	80	55	67	12	7,83
146040UF	35-50 (1 1/4"-1 1/2")	1 1/2"	204,5	93	92	22	139	64	95	85	99	8	6,53

CODE	dn	R	L1	L2	L3	L4	H	M	t1	t2	b	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
147020UM	15-22 (3/8"-1/2")	3/4"	140	67	70	16	103	53	55	44	54	30	6,12
147025UM	21-27 (1/2"-3/4")	1"	146	67	70	19	103	64	64,5	49	59	25	8,16
147032UM	27-35 (3/4"-1")	1 1/4"	179	93	92	21	139	64	80	55	67	12	7,83
147040UM	35-50 (1 1/4"-1 1/2")	1 1/2"	214,5	93	92	22	139	64	95	85	99	8	6,53

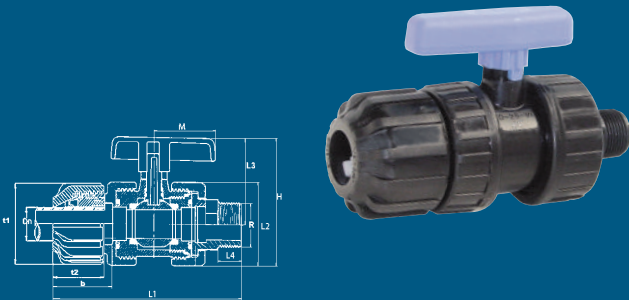
**COMPRESIÓN PE-UNIVERSAL**  
**PE-UNIVERSAL COMPRESSION**  
**COMPRESSION PE-UNIVERSEL**



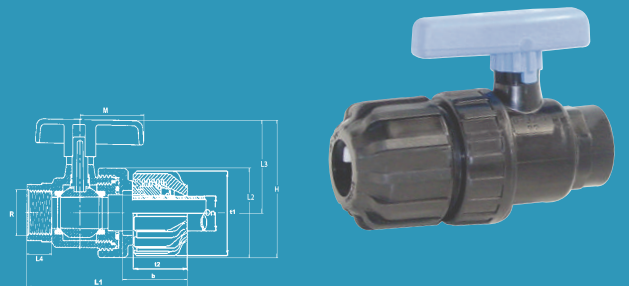
**COMPRESIÓN UNIVERSAL · ROSCA HEMBRA BSP**  
**UNIVERSAL COMPRESSION · FEMALE BSP THREAD**  
**COMPRESSION UNIVERSEL · FEMELLE À VISSER BSP**



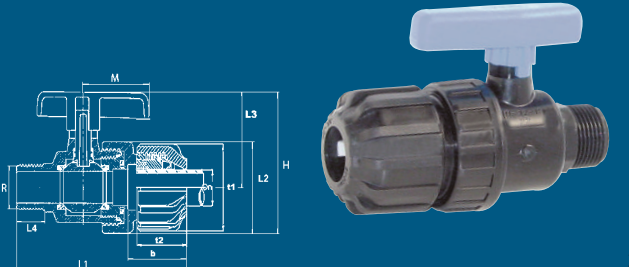
**COMPRESIÓN UNIVERSAL · ROSCA MACHO BSP**  
**UNIVERSAL COMPRESSION · MALE BSP THREAD**  
**COMPRESSION UNIVERSEL · MALE À VISSER BSP**



**COMPRESIÓN UNIVERSAL · ROSCA HEMBRA BSP**  
**UNIVERSAL COMPRESSION · FEMALE BSP THREAD**  
**COMPRESSION UNIVERSEL · FEMELLE À VISSER BSP**



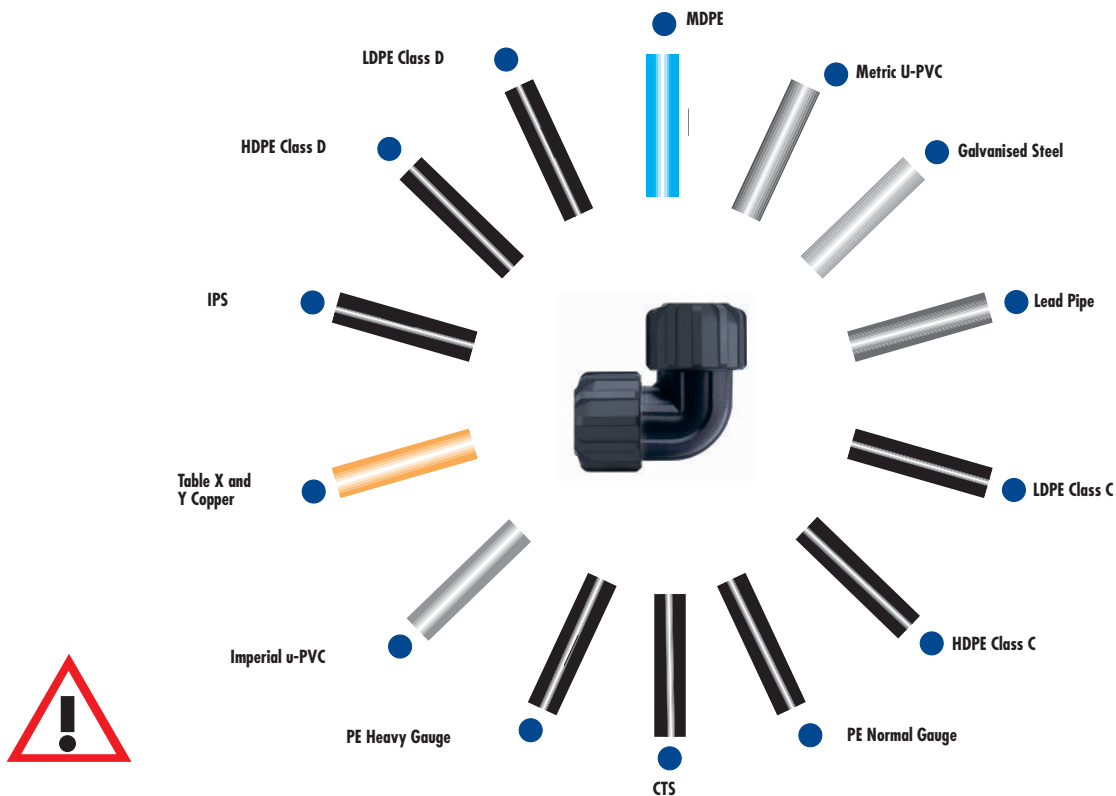
**COMPRESIÓN UNIVERSAL · ROSCA MACHO BSP**  
**UNIVERSAL COMPRESSION · MALE BSP THREAD**  
**COMPRESSION UNIVERSEL · MALE À VISSER BSP**



Accesorios de PP a compresión para reparaciones mediante unión de cualquier tubería entre 15mm o 1/2" y 50mm o 1/2" sea del material que sea.

PP compression fittings for repairing or joining any kind of pipes between 15mm or 1/2" and 50mm or 1/2"

Raccords à compression PP pour réparer ou joindre des tuyaux, de n'importe quel matériel, entre 15mm ou 1/2" et 50mm ou 1/2"

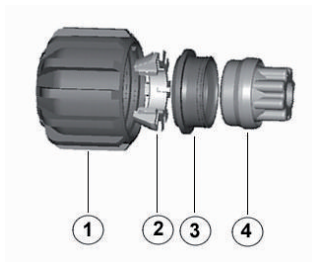


**KIT UNIVERSAL PN16 (PLOMO PN10)**

**UNIVERSAL KIT PN16 (LEAD PN10)**

**KIT UNIVERSAL PN16 (LEAD PN10)**

WRAS

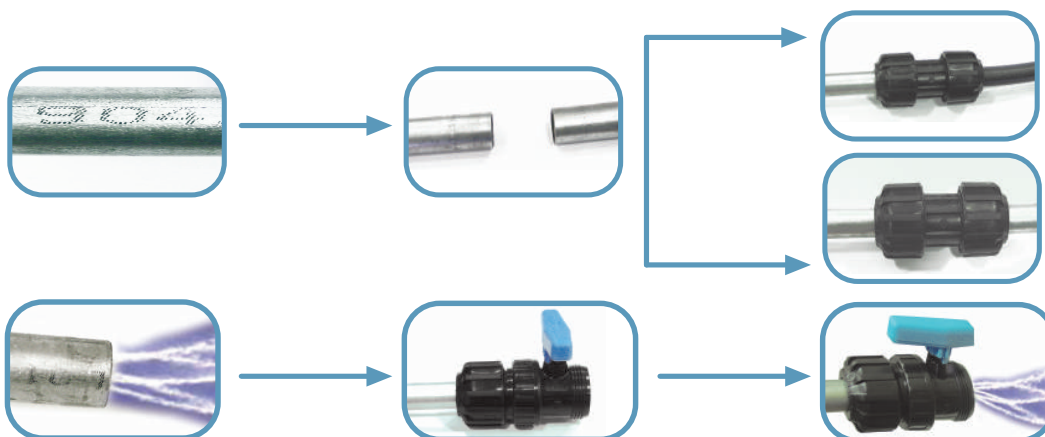


N°	Part Composante Pièce	Material Matériau Matériau
1	compression nut / tuerca de compresión / écrou de serrage	polypropylene
2	slip-ring/ bicono universal/ bague de crantage universelle	polyacetal resin/stainless steel
3	compression ring / casquillo / bague de compression	polypropylene
4	universal rubber/junta universal/joint universal	nitrile rubber

Ideal para solución de problemas con ingenio.

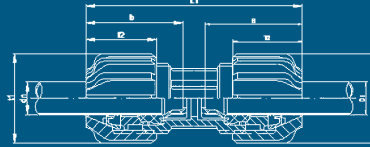
Perfect for solving problems with imagination.

Idéal pour résoudre des problèmes avec esprit.



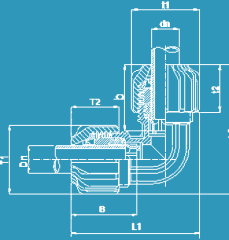
CODE	Dn	dn	L1 (max/min)	T1	T2	t1	t2	B (max)	b (max)	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
730101	15-22 (3/8"-1/2")	15-22 (3/8"-1/2")	103 / 126	55	44	55	44	58	58	30	4,11
730102		21-27 (1/2"-3/4")	116 / 131	64,5	46	55	44	61	58	25	3,30
730103		27-35 (1")	119 / 143	80	55	55	44	74,5	58	16	3,95
730104	21-27 (1/2"-3/4")	21-27 (1/2"-3/4")	123 / 136	64,5	46	64,5	46	61	61	22	4,18
730105		27-35 (3/4"-1")	128 / 146	80	55	64,5	46	74,5	61	15	4,16
730106		35-50 (1 1/2")	159 / 181	95	85	64,5	46	108	61	8	2,32
730107	27-35 (3/4"-1")	27-35 (3/4"-1")	140 / 164	80	55	80	55	74,5	74,5	12	4,15
730108		35-50 (1 1/4"-1 1/2")	163 / 196	95	85	80	55	108	74,5	8	3,05
730109	35-50 (1 1/4"-1 1/2")	35-50 (1 1/4"-1 1/2")	199 / 238	95	85	95	85	108	108	8	3,57

**MANGUITO REPARACIÓN UNIVERSAL**  
UNIVERSAL REPAIR COUPLING  
RACCORD RÉPARATION UNIVERSEL



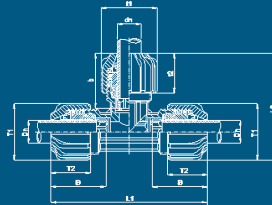
CODE	Dn	dn	L1 (max/min)	L2 (max/min)	T1	T2	t1	t2	B (max)	b (max)	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>	
730202	15-22 (3/8"-1/2")	21-27 (1/2"-3/4")	112,5/119,5	104/111,5	64,5	46	55	44	61	58	18	3,62	0,019

**CODO 90° REPARACIÓN UNIVERSAL**  
UNIVERSAL REPAIR 90° ELBOW  
COUDE 90° RÉPARATION UNIVERSEL



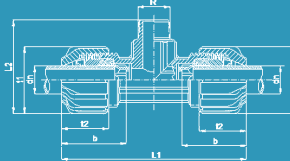
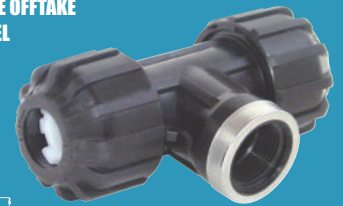
CODE	Dn	dn	L1 (max/min)	L2 (max/min)	T1	T2	t1	t2	B (max)	b (max)	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>	
730302	21-27 (1/2"-3/4")	15-22 (3/8"-1/2")	153/168	118/125	64,5	46	55	44	61	58	10	3,06	0,019
730304	27-35 (3/4"-1")	21-27 (1/2"-3/4")	172,5/201,5	137/144,5	80	55	64,5	46	74,5	61	6	3,1	

**TE DE REPARACIÓN UNIVERSAL**  
UNIVERSAL REPAIR 90° TEE  
TÉ DE RÉPARATION UNIVERSEL



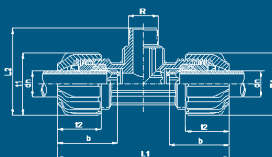
CODE	dn	R	L1 (max/min)	L2	t1	t2	b (max)	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
730401	15-22 (3/8"-1/2")	1/2"	145/159	67,5	55	44	58	20	3,52
730402		3/4"	143/157	75	55	44	58	3,38	
730403	21-27 (1/2"-3/4")	3/4"	154/169	77,5	64,5	46	61	14	3,75
730404		1"	154/169	91	64,5	46	61	3,57	
730405	27-35 (3/4"-1")	1"	176/205	102,5	80	55	74,5	8	3,43
730406		1 1/4"	175,5/204,5	102	80	55	74,5	3,41	

**TE HEMBRA DE REPARACIÓN UNIVERSAL**  
UNIVERSAL REPAIR 90° TEE FEMALE OFFTAKE  
TÉ FEMELLE RÉPARATION UNIVERSEL



CODE	dn	R	L1 (max/min)	L2	t1	t2	b (max)	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
730501	15-22 (3/8"-1/2")	1/2"	145/159	71	55	44	58	20	3,20
730502		3/4"	145/159	73,5	55	44	58	3,18	
730503	21-27 (1/2"-3/4")	1"	154/169	93	64,5	46	61	14	3,50
730504		27-35 (3/4"-1")	1 1/4"	172/201	102,5	80	55	74,5	8

**TE MACHO DE REPARACIÓN UNIVERSAL**  
UNIVERSAL REPAIR 90° TEE MALE OFFTAKE  
TÉ MÂLE REPARATION UNIVERSEL



**KIT UNIVERSAL**

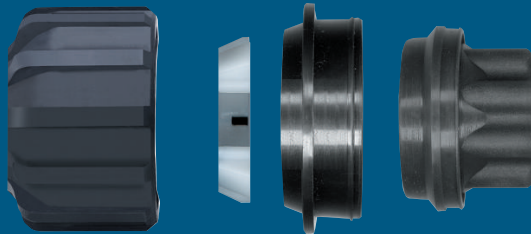
Kit adaptador universal es compatible con cualquier accesorio STP y permite uniones entre cualquier tipo de tubería de medidas entre 15 y 50mm (1/2"-1 1/2") con tubería de polietileno métrico de 16 a 50mm.

**KIT UNIVERSAL**

The universal kit is compatible with any STP fitting. He allows the transition between pipes made from any material, sizes from 15 to 50mm (1/2"-1 1/2") to any polyethylene pipe between 16 and 50mm.

**KIT UNIVERSAL**

Le Kit adaptateur universel est compatible avec tous les raccords STP et permet de connecter tous types de tuyaux de 15 à 50mm (1/2"-1 1/2") aux tubes en polyéthylène métriques de 16 à 50mm.

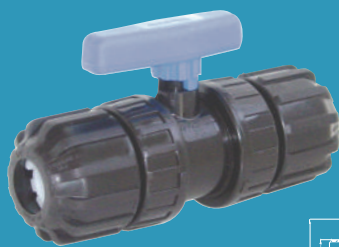


1. NUT: PP copolymer
2. SPLIT-RING: POM (acetal resin) + stainless steel teeth
3. PRESSING RING: PP copolymer
4. UNIVERSAL ADAPTOR: NBR (Patent pending)

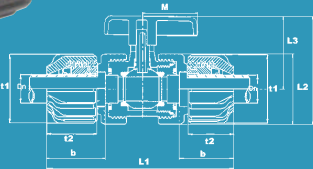
CODE	dn	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
715015	15-22 (3/8"-1/2")	40	2,00
715021	21-27 (1/2"-3/4")	30	2,40
715027	27-35 (3/4"-1")	20	2,60
715035	35-50 (1 1/4"-1 1/2")	10	1,50

- \*715015 compatible to any PLAST fitting PE outlet 25mm
- \*715021 compatible to any PLAST fitting PE outlet 32mm
- \*715027 compatible to any PLAST fitting PE outlet 40mm
- \*715035 compatible to any PLAST fitting PE outlet 50mm

**VÁLVULAS DE PP DE REPARACIÓN UNIVERSAL PN10**  
**PP valves for universal repairs PN10**  
**Vannes en PP pour réparation universel PN10**

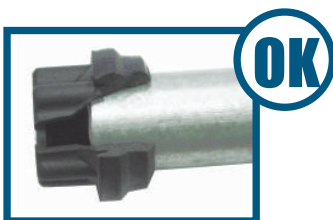


**COMPRESIÓN UNIVERSAL**  
**UNIVERSAL COMPRESSION**  
**COMPRESSION UNIVERSEL**

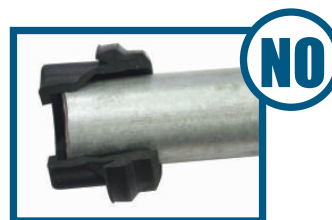


CODE	Dn	dn	L1	L2	L3	H	M	t1/T1	t2/T2	B/b	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
140025U	15-22 (3/8"-1/2")	15-22 (3/8"-1/2")	180	67	70	103	53	55	44	54	30	10,80
140031U	21-27 (1/2"-3/4")	15-22 (3/8"-1/2")	180	67	70	103	53	64,5/55	46/44	59/54	25	9,25
140032U	21-27 (1/2"-3/4")	21-27 (1/2"-3/4")	182	67	70	103	53	64,5	46	59	25	10,00
140040U	27-35 (3/4"-1")	27-35 (3/4"-1")	226	93	92	139	64	80	55	67	12	9,84
140050U	35-50 (1 1/4"-1 1/2")	35-50 (1 1/4"-1 1/2")	290	93	92	139	64	95	85	99	8	10,96

**COMO COLOCAR LAS TUBERÍAS DENTRO JUNTA TOPE · HOW TO INSERT THE PIPE INTO THE RUBBER ADAPTER · COMMENT INSÉRER LES TUYAUX DANS LE JOINT UNIVERSEL**



Coloque el tubo dentro de la junta tope.  
 Just place the pipe into the rubber adapter.  
 Installer le tuyau dans le joint universel.



El tubo no debe atravesar la junta tope.  
 Do not push the pipe through the rubber adapter.  
 Le tuyau ne doit pas traverser le joint universel

**DESPIECE VÁLVULA · VALVES COMPONENTS · VANNE DETACHÉE**





**LLAVE PEQUEÑA Y GRANDE**  
**SMALL AND BIG WRENCH**  
**CLE PETITE ET GRANDE**



CODE	DN		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
776001	16-32	50	5,36	0,019
776002	40-63	50	9,33	

**LLAVE DOBLE**  
**DOUBLE WRENCH**  
**CLE DOUBLE**



CODE	DN		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
776003	16-63	50	9,11	0,019

**LLAVE METÁLICA**  
**METALIC WRENCH**  
**CLÉ METALLIQUE**



CODE	DN		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
776004	40-63	1	1,15	
776005	75-110	1	1,50	

**JUNTA**  
**O'RING**  
**JOINT**



CODE	DN
000116	16
000120	20
000125	25
000135	32
000140	40
000150	50
000163	63
000175	75
000190	90
000110	110

**BICONO DE AGARRE**  
**GRIP RING**  
**BAGUE DE CRANTAGE**



CODE	DN
000516	16
000522	20
000526	25
000532	32
000540	40
000550	50
000563	63
000575	75
000590	90
000511	110

**CASQUILLO**  
**COMPRESSION RING**  
**BAGUE DE COMPRESSION**



CODE	DN
000416	16
000420	20
000425	25
000435	32
000440	40
000450	50
000463	63
000475	75
000490	90
000410	110

**TUERCA DE COMPRESIÓN**  
**COMPRESSION NUT**  
**ÉCROU DE SERRAGE**



CODE	CODE	DN
000220G3	000220A/N	16/20
000225G3	000225A2/N2	25
000232G3	000232A2/N2	32
000240G3	000240A2/N2	40
000250G3	000250A2/N2	50
000263G3	000263A2/N2	63
000275G3	000275A2/N2	75
000290G3	000290A2/N2	90
000211G3	000211A2/N2	110

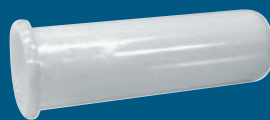


**COOPER ADAPTER KIT PN16**  
**KIT ADAPTADOR COBRE PN16**  
**KIT ADAPTATEUR CUIVRE PN16**



CODE	DN	for cooper pipe Ø	BOX	WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
715220CU	1/2"	12.5mm	40	2	0,019
715225CU	3/4"	19mm	40	2	

**REFUERZO INTERIOR**  
**PIPE LINER**  
**RENFORT INTERIEUR**



CODE	DN		WEIGHT X BOX KG	VOLUME X BOX m <sup>3</sup>
780020	20	1400	4,60	
780025	25	800	7,10	0,037
780032	32	400	13,70	
780040	40	400	8,81	
780050	50	300	11,01	0,074
780063	63	172	12,52	

**BICONO DE CPVC**  
**CPVC GRIP RING**  
**BAGUE DE CRANTAGE CPVC**



CODE	DN
000120PVC	16/20
000125PVC	25
000132PVC	32
000140PVC	40
000150PVC	50
000163PVC	63
000175PVC	75
000190PVC	90
000110PVC	110

**BICONO PARA TUBOS DE PVC**  
**GRIP RING FOR PVC PIPES**  
**BAGUE DE CRANTAGE POUR TUBES PVC**



CODE	DN
000125PVM	25
000132PVM	32
000140PVM	40
000150PVM	50
000163PVM	63
000175PVM	75
000190PVM	90
000110PVM	110

**GOMA TRANSICIÓN CU,FE,PVC**  
**TRANSITION RUBBER CU,FE,PVC**  
**JOINT DE TRANSITION CU,FE,PVC**

CODE	DN
000715	Ø 15-16 (1/2")
000721	Ø21-22 (3/4")



PN10 (without pull-out)

**INSERTO MULTICAPA**  
**MULTILAYER INSERT**  
**INSERT MULTICOUCHE**

CODE	DN
777116	16
777120	20
777125	25
777132	32



**GOMA MULTICAPA**  
**MULTILAYER RUBBER**  
**JOINT MULTICOUCHE**

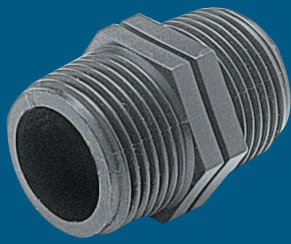
CODE	DN
000716	16
000720	20



## ACCESORIOS DE PP ROSCADOS PN10

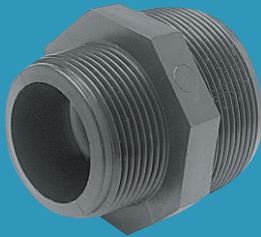
PP threaded fittings PN10

Raccords filetés en PP PN10



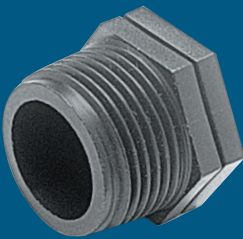
**MACHÓN  
NIPPLE  
MAMELON**

CODE	Diameter	BAG/	WEIGHT VOLUME	
			X BOX KG	X BOX m <sup>3</sup>
750001	1/2"x1/2"	100	0,86	0,003
750002	3/4"x3/4"	100	1,19	0,005
750003	1"x1"	50	0,96	0,004
750004	1 1/4"x1 1/4"	50	1,79	0,008
750005	1 1/2"x1 1/2"	20	0,80	0,004
750006	2"x2"	10	0,68	0,004
750007	2 1/2"x2 1/2"	5	0,55	0,003
750008	3"x3"	5	1,52	0,005
750009	4"x4"	5		0,008



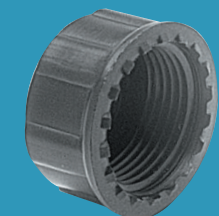
**MACHÓN REDUCIDO  
REDUCING NIPPLE  
MAMELON REDUIT**

CODE	Diameter	BAG/	WEIGHT VOLUME		CODE	Diameter	BAG/	WEIGHT VOLUME	
			X BOX KG	X BOX m <sup>3</sup>				X BOX KG	X BOX m <sup>3</sup>
751001	3/4"x1/2"	100	1,00	0,004	751011	3"x2"	5	0,82	0,005
751002	1"x3/4"	100	1,81	0,008	751012	1"x1/2"	100	1,38	0,006
751003	1 1/4"x1"	50	1,53	0,008	751013	1 1/4"x1/2"	50		0,006
751004	1 1/2"x1 1/4"	20	0,80	0,004	751014	1 1/4"x3/4"	50		0,006
751005	2"x1 1/2"	10	0,65	0,003	751015	1 1/2"x1/2"	20		0,003
751006	2 1/2"x2"	5	0,51	0,003	751016	1 1/2"x3/4"	20		0,003
751007	3"x2 1/2"	5	1,13	0,005	751017	1 1/2"x1"	20		0,004
751008	2"x1/2"	10	0,65	0,003	751018	2"x3/4"	10	0,54	0,003
751009	4"x2 1/2"	5		0,008	751019	2"x1"	10	0,55	0,003
751010	4"x3"	5		0,008	751020	2"x1 1/4"	10	0,60	0,003



**TAPÓN MACHO  
THREADED PLUG  
BOUCHON MALE**

CODE	Diameter	BAG/	WEIGHT VOLUME	
			X BOX KG	X BOX m <sup>3</sup>
752001	1/2"	100	0,48	0,002
752002	3/4"	100	0,90	0,003
752003	1"	50	0,78	0,003
752004	1 1/4"	50	1,33	0,005
752005	1 1/2"	20	1,23	0,003
752006	2"	10	0,54	0,002
752007	2 1/2"	5	0,58	0,002
752008	3"	5	0,67	0,003
752009	4"	5		0,006



**TAPÓN HEMBRA  
THREADED CAP  
BOUCHON FEMELLE**

CODE	Diameter	BAG/	WEIGHT VOLUME	
			X BOX KG	X BOX m <sup>3</sup>
753001	1/2"	100	0,48	0,002
753002	3/4"	100	0,83	0,003
753003	1"	50	0,60	0,003
753004	1 1/4"	50	0,82	0,005
753005	1 1/2"	20	0,68	0,003
753006	2"	10	0,50	0,003
753007	2 1/2"	5		0,002
753008	3"	5		0,004
753009	4"	5		0,005



**MANGUITO  
MANCHON  
SOCKET**

CODE	Diameter	BAG/	WEIGHT VOLUME	
			X BOX KG	X BOX m <sup>3</sup>
754001	1/2"x1/2"	100	1,46	0,005
754002	3/4"x3/4"	100	2,17	0,009
754003	1"x1"	50	1,74	0,008
754004	1 1/4"x1 1/4"	50	3,00	0,013
754005	1 1/2"x1 1/2"	20	1,48	0,006
754006	2"x2"	10	1,15	0,006
754007	2 1/2"x2 1/2"	5	1,10	0,005
754008	3"x3"	5	1,50	0,006
754009	4"x4"	5		0,011



**MANGUITO REDUCIDO  
REDUCING SOCKET  
MANCHON REDUIT**

CODE	Diameter	BAG/	WEIGHT VOLUME	
			X BOX KG	X BOX m <sup>3</sup>
755001	3/4"x1/2"	100	2,01	0,008
755002	1"x3/4"	100	1,58	0,013
755003	1 1/4"x1"	50	1,83	0,013
755004	1 1/2"x1 1/4"	20	1,40	0,006
755005	2"x1 1/2"	10	0,94	0,005
755006	2 1/2"x2"	5	0,88	0,004
755007	3"x2 1/2"	5	1,17	0,005
755008	4"x2 1/2"	5		0,008
755009	4"x3"	5		0,008

Materiales / Materials/Matériaux: polipropileno / polypropylène / polypropylène  
Rosca BSP o NPT/Threads/Filetage: UNI ISO 7/1, UNI ISO 228/1, UNI EN 10226-1

CODE	Diameter	BAG/	WEIGHT VOLUME	
			X BOX KG	X BOX m <sup>3</sup>
756001	1/2"x3/8"	100	1,09	0,005
756002	3/4"x1/2"	100	1,16	0,005
756003	1"x1/2"	50	1,00	0,005
756004	1"x3/4"	50	1,00	0,005
756005	1 1/4"x3/4"	50	0,89	0,008
756006	1 1/4"x1"	50	1,06	0,011
756007	1 1/2"x1 1/4"	20	1,38	0,005
756008	2"x1 1/2"	10	0,68	0,004

CODE	Diameter	BAG/	WEIGHT VOLUME	
			X BOX KG	X BOX m <sup>3</sup>
757001	3/4"x1/2"	100	0,70	0,003
757002	1"x1/2"	50	0,72	0,003
757003	1"x3/4"	50	0,64	0,003
757004	1 1/4"x1/2"	50	1,08	0,005
757005	1 1/4"x3/4"	50	1,29	0,005
757006	1 1/4"x1"	50	1,12	0,005
757007	1 1/2"x3/4"	20	0,72	0,002
757008	1 1/2"x1"	20	0,62	0,002
757009	1 1/2"x1 1/4"	20	0,46	0,002

CODE	Diameter	BAG/	WEIGHT VOLUME	
			X BOX KG	X BOX m <sup>3</sup>
757010	2"x3/4"	10	0,53	0,002
757011	2"x1"	10	0,52	0,002
757012	2"x1 1/4"	10	0,50	0,002
757013	2"x1 1/2"	10	0,40	0,002
757014	2 1/2"x2"	5	0,42	0,002
757015	3"x2"	5	0,72	0,003
757016	3"x2 1/2"	5	0,50	0,003
757017	4"x3"	5		0,003

CODE	Diameter	BAG/	WEIGHT VOLUME	
			X BOX KG	X BOX m <sup>3</sup>
758001	1/2"x1/2"	100	1,81	0,008
758002	3/4"x3/4"	50	1,40	0,006
758003	1"x1"	50	1,18	0,011

CODE	Diameter	BAG/	WEIGHT VOLUME	
			X BOX KG	X BOX m <sup>3</sup>
759001	1/2"	50	1,55	0,006
759002	3/4"	50	2,05	0,011
759003	1"	25	1,69	0,008
759004	1 1/4"	10	1,28	0,006
759005	1 1/2"	10	1,71	0,008
759006	2"	10	0,97	0,016
759007	2 1/2"	5		0,013
759008	3"	5		0,020

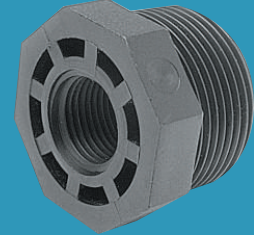
CODE	Diameter	BAG/	WEIGHT VOLUME	
			X BOX KG	X BOX m <sup>3</sup>
760001	3/4"x1/2"	100	1,75	0,008
760002	1"x1/2"	50	1,40	0,006
760003	1"x3/4"	50	1,50	0,006
760004	1 1/4"x1/2"	25	1,17	0,005
760005	1 1/4"x3/4"	25	1,26	0,005
760006	1 1/4"x1"	25	1,31	0,005
760007	1 1/2"x1/2"	10	0,58	0,002
760008	1 1/2"x3/4"	20	1,23	0,005
760009	1 1/2"x1"	20	1,25	0,005
760010	1 1/2"x1 1/4"	20	1,25	0,005
760011	2"x3/4"	10	0,90	0,005
760012	2"x1"	10	0,87	0,004
760013	2"x1 1/4"	10	0,93	0,004
760014	2"x1 1/2"	10	0,97	0,006

CODE	Diameter	BAG/	WEIGHT VOLUME	
			X BOX KG	X BOX m <sup>3</sup>
761001	1/2"x1/2"	100		0,008
761002	3/4"x3/4"	100		0,013
761003	1"x1"	50		0,011
761004	1 1/4"x1 1/4"	10		0,004
761005	1 1/2"x1 1/2"	10		0,005
761006	2"x2"	10		0,009
761007	2 1/2"x2 1/2"	5		0,009
761008	3"x3"	5		0,018

**REDUCCIÓN MACHO-HEMBRA**  
**MALE-FEMALE REDUCER**  
**REDUCTION MALE-FEMELLE**



**TUERCA REDUCIDA**  
**REDUCING BUSH**  
**ÉCROU REDUCTION**



**CURVA 90° MACHO-HEMBRA**  
**90° BEND MALE-FEMALE**  
**COURBE 90° MALE-FEMELLE**



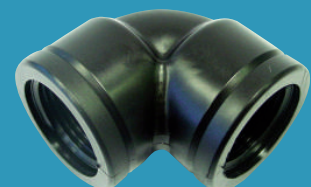
**TE IGUAL HEMBRA**  
**EQUAL FEMALE TEE**  
**TÉ ÉGAL FEMELLE**



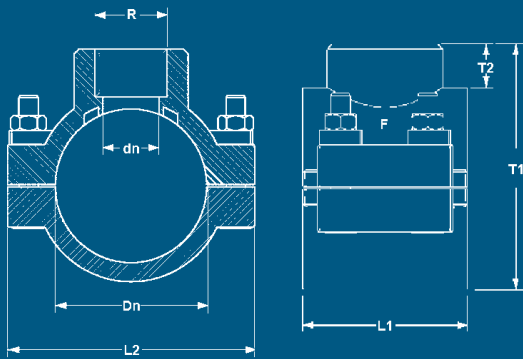
**TUERCA REDUCIDA HEMBRA-MACHO**  
**BUSH FEMALE-MALE**  
**ÉCROU REDUCTION FEMELLE-MALE**



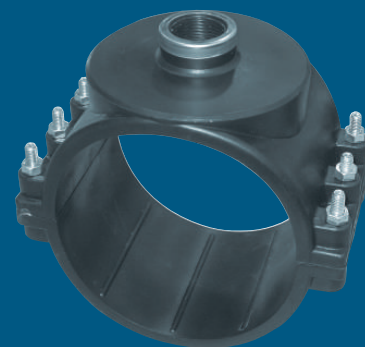
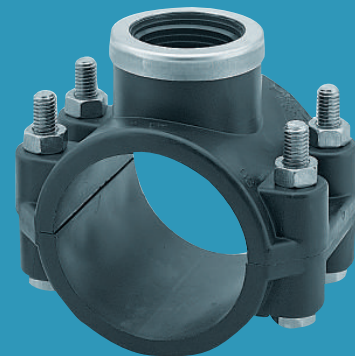
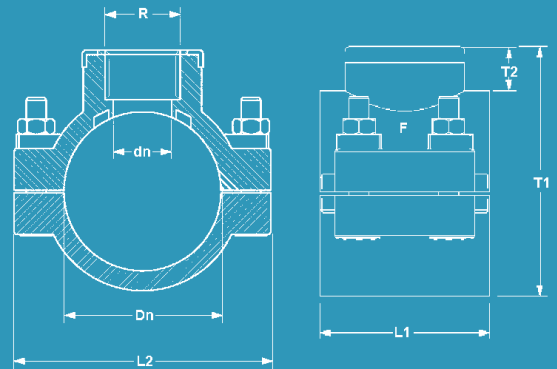
**CURVA 90° HEMBRA**  
**90° BEND FEMALE**  
**COURBE 90° FEMELLE**



**UNREINFORCED**



**REINFORCED**



**Materiales / Materials / Matériaux:**

- Cuerpo / Body / Corps: polipropileno / polypropylene / polypropylène
- Junta / Gasket / Joint: NBR
- Tornillos / Bolts / Vis: acero galvanizado / galvanized steel / acier galvanisé
- Aro / Reinforcing ring / Bague de renforcement: INOX AISI 430
- Rosca / Threads / Filetage: BSP o NPT

**Condiciones de trabajo / Working conditions / Conditions de travail:**

- Presión max. / max. pressure / pression max: sin refuerzo / unreinforced / sans renfort PN10 Ø20-63 and PN6 Ø75-315
  - con refuerzo / reinforced / avec renfort PN12.5 Ø20-63 and PN10 Ø75-315
  - Temperatura max. / max. temperature / température max: 20°C
- Los collarines de toma son de conformidad según normas / The clamp saddles conform norms / Les colliers de prise son conformes aux normes:  
 UNI EN ISO 13460, UNI EN 1022/1, ANSI/ASME B1.20.1





⊕ Resistente / Resistant    ◐ Parcialmente Resistente / Partial resistant    ○ No resistente / No resistant

SUBSTANCE	CONCENTRATION	20°C	60°C	100°C	SUBSTANCE	CONCENTRATION	20°C	60°C	100°C
<b>A</b>					<b>C</b>				
Acetaldehyde	techn. grade	/			Butter milk		+		
Acetaldehyde, aqueous	any	+	+		Butyl acetate	techn. grade	/	-	
Acetamide		+	+		Butyl alcohol		+		
Acetic acid (glacial)	100%	+	/D	-	Butyl phenol	techn. grade	+		
Acetic acid, aqueous	70%	+	+	+	Butylene (butene), liquid	techn. grade	/		
Acetic anhydride techn. Grade	techn. grade	+	/D	-	Butylene glycol	techn. grade	+		
Acetone	100%	+	+(b)		Butyric acid, aqueous	any	+		
Acetophenone		+	/		<b>C</b>				
Acids, aromatic		+	+		Cake		+	+	+
Acrylonitrile	techn. grade	+			Calcium carbide		+	+	
Adipic acid, aqueous	saturated	+	+		Calcium carbonate, aqueous	cold saturated	+	+	+
Air	techn. grade	+	+	+	Calcium chlorated, aqueous	saturated	+	+	
Alcohol (drinking)		+	+	+(b)	Calcium hydroxide		+	+	
Allyl alcohol (2-propenol-1), aqueous	96%	+	+		Calcium nitrate, aqueous	cold saturated	+	+	
Aluminium chloride, aqueous	any	+	+	+	Calcium oxide (powder)		+	+	
Aluminium hydroxide		+	+	+	Calcium phosphate		+	+	
Aluminium salts, aqueous	any	+	+	+	Calcium sulphate		+	+	
Aluminium sulphate, solid		+	+		Camphor		+		
Alums (all types)	aqueous, any	+	+		Cane sugar,	any	+	+	
Amino acids		+	+		Carbazole		+		
2-aminoethanol (ethanolamine)	techn. grade	+			Carbolic acid (phenol)		+	+	D
Ammonia water	any	+	+		Carbolineum	as commercial	+		
Ammonia, aqueous	10%	+	+		Carbolineum, aqueous (for fruit trees)		+	D	/D
Ammonia, gaseous	100%	+	+		Carbon dioxide	100%	+	+	
Ammonia, liquid	100%	+			Carbon tetrachloride (tetrachloromethane)	100%	-		
Ammonium acetate, aqueous	any	+	+	+	Carbonic acid, aqueous	any	+	+	
Ammonium chloride, aqueous	any	+	+	+	Carbonic acid, dry	100%	+	+	
Ammonium fluoride, aqueous	saturated	+	+		Caustic soda solution	any	+	+	+
Ammonium hydrosulphide, aqueous	any	+	+		Cetyl alcohol (hexadecanol)		+		
Ammonium metaphosphate		+	+		Chloral (trichloroacetaldehyde)	techn. grade	+	+	
Ammonium nitrate, aqueous	any	+	+	+	Chloral hydrate, aqueous	any	/	-	
Ammonium phosphate, aqueous	any	+	+	+	Chloric acid, aqueous	1%	+	/	-
Ammonium sulphide, aqueous	any	+	+		Chloric acid, aqueous	20%	+	-	
Amyl acetate	techn. grade	/	-		Chlorinated lime		+	+	
Aniline	any	+	+		Chlorine water	cold saturated	/	-	
Aniline hydrochloride, aqueous	any	+	+		Chlorine, aqueous solution (chlorine water)	cold saturated	/	-	
Animal oils		+	/		Chlorine, gaseous, dry	100%	-		
Anisole	100%	/	/		Chlorine, gaseous, moist		-		
Anon (cyclohexanone)		+	/		Chlorine liquid	100%	-		
Anti-freeze (automotive)	as commercial	+	+	+	Chloroacetic acid	100%	+		
Antimony chloride, anhydrous		+	+		Chloroacetic acid, aqueous	<85%	+	+	
Antimony tri-chloride		+	+		Chlorobenzene	100%	/	-	
Apple juice		+	+		Chloroform	techn. grade	/	-	
Arsenic acid anhydride		+	+		Chlorosulphonic acid	techn. grade	-		
Arsenic acid, aqueous	any	+	+		Chrome anode slime		+		
Ascorbic acid		+	+		Chromic acid, aqueous	50%	/D	/D	
Asphalt		+	/D		Chromium salts (dibasic, tribasic), aqueous	saturated	+	+	
<b>B</b>					Chromium trioxide, aqueous	50%	/D	/D	
Barium hydroxide, aqueous	any	+	+		Chromium trioxide, aqueous (Chromic acid)	cold saturated	-	-	
Barium salts, aqueous	any	+	+	+	Chromosulphuric acid		-		
Battery acid		+	+	+	Cider		+	+	
Beef dripping			+	+	Cinnamon		+		
Beer		+	+	+	Citric acid, aqueous	saturated	+	+	+
Beeswax			+	/	Citrus fruit juices		+	+	
Benzaldehyde, aqueous	any	+			City gas / illuminating gas	as commercial	+		
Benzene sulphonic acid			+	+	Clove oil		+	/	
Benzoic acid, aqueous	any	+	+	+	Cloves (spice)		+		
Benzoyl chloride			/		Coal-tar oil		+	D	
Benzil chloride			/	-	Cocoa (prepared)		+	+	+
Bichromate-sulphuric acid	concentrated	-			Cocoa powder		+		
Bismuth salts			+		Coconut oil		+	+	
Bisulphite liquor			+	+	Cod-liver oil		+		
Bitter almond oil			+	+	Coffee (prepared)		+	+	+
Borax (sodium tetraborate), aqueous	saturated	+	+	+	Cognac		+		
Boric acid, aqueous	any	+	+	+	Cola concentrates		+	+	
Brake fluid			+	+	Colorants and lubricants for metalworking "Hoechst"		/	/	
Bromochloromethane			-		Copper cyanide, aqueous	saturated	+	+	
Bromic acid	concentrated		/		Copper fluoride, aqueous	saturated	+		
Bromine vapours	high				Copper nitrate, aqueous	30%	+	+	
Bromine water	cold saturated	/			Copper sulphate, aqueous	any	+	+	
Bromine, liquid	100%	-			Cottonseed oil	techn. grade	+	+	
1,3 butadiene, gaseous	techn. grade	/	-		Coumarone resins		+		
Butane, gaseous	100%	+	+		Cream, whipped cream		+		
Butane, liquid	100%	+			Creosote		+	+	D
Butanediol, aqueous	any	+	+		Cresol, aqueous	dilute	+	+	D
2-butenediol-1,4	techn. grade	+	+		Crotonaldehyde	techn. grade	+		
Butanone		+	/		Cyanide of potash, aqueous	any	+	+	
Butinediol	100%	+	+		Cyclanone (fatty alcohol sulphionate)	as commercial	+	+	
2-butenediol-1,4	techn. grade	+			Cyclohexane	100%	+		
					Cyclohexanol		+	+	

SUBSTANCE	CONCENTRATION	20°C	60°C	100°C	SUBSTANCE	CONCENTRATION	20°C	60°C	100°C
<b>D</b>					<b>G</b>				
Defoamers		+			Gas, natural and manufactured	techn. grade	+		
Detergents		+	+		Gelatin	any	+	+	
Detergents, synthetic	end use conc.	+	+	+	Genantfin		+	+	+
Developer solutions (photographic)		+D	+D		Gin		+		
Dextrosa		+	+		Glauber's salt, aqueous	any	+	+	+
1,2-Diaminoethane (ethylenediamine)	techn. grade	+	+		Glucose, aqueous	any	+	+	+
1,2-Dibromoethane		/			Glue		+		
Dibutyl ether		/	-		Glutin glue	as commercial	+	+	
Dibutyl sebacate		+			Glycerin, aqueous	any	+	+	+
Dichloroacetic acid	50%	+			Glycol	100%	+	+	+
Dichloroacetic acid methyl ester		+	+		Glycol, aqueous	as commercial	+	+	+
Dichlorobenzene		/			Glykokoll		+	+	
Dichloroethane		+			Grapefruit juice		+	+	
1,1 Dichloroethylene (vinylidene chloride)	techn. grade	-							
Diesel fuel/oil		+to/	/		<b>H</b>				
Diethylen ether	100%	/			Heptane		/	/	
Diethylene glycol		+	+		n-Heptane	100%	/	/	
Diglycolic acid, aqueous	30%	+	+		Hexane		+	/	
Dihexyl phthalate	techn. grade	+	/		n-Hexane	100%	+	/	
Diisobutylketone	techn. grade	+	-		Honey		+	+	
Diisopropyl ether	100%	/	+		Horseradish (prepared)		+		
Dimethyl formamide	techn. grade	+	+		Hydrazine hydrate		+		
Dimethylamine		+			Hydrobromic acid, aqueous	50%	+	+	
Diocetylphthalate		+	/		Hydrocyanic acid		+	+	
Dioxane		/	/	-	Hydrofluoric acid, aqueous	40%	+	+	
Disodium phosphate		+	+		Hydrogen		+	+	
Disodium sulphate		+	+		Hydrogen chloride gas, dry and moist		+	+	+D
Drinking water, also chlorinated		+	+	+	Hydrogen peroxide, aqueous	30%	+	/	
					Hydrogen sulphide, gaseous		+	+	
					Hydroquinone		+D		
<b>E</b>					Hydroxylamine sulphate, aqueous	up to 10%	+	+	
Eau de javelle (potassium hypochlorite bleaching solution)		+to/	/		Hypochlorous acid	12%	+	+	
Edible oil, vegetable		+	/			+to/	/		
Emulsifiers		+	+		<b>I J</b>				
Emulsions (photographic)		+	+		Ink		+	+	
Engine oil		+	/	-	Iodine in potassium iodide solution	3% iodine	+	+	
Epichlorohydrin		+			Iodine tincture, DAB 6	as comercial	+	+	
Epsom salt, aqueous	any	+	+	+	Iron (II) chloride, aqueous	saturated	+	+	
Ethanol	96%	+	+	+	Iron (II) sulphate, aqueous	saturated	+	+	
Ethanol denaturated with toluene	96% (v/v)	+	+	+	Iron (III) nitrate, aqueous	saturated	+	+	
Ether		/			Iron SALT	saturated	+	+	+
Ethereal oils		/	-		Isobutyl alcohol (isobutanol)		+		
Ethyl acetate	techn. grade	+	/		Isocitane		+	/	
Ethyl alcohol	96%	+	+	+	Isopropanol	techn. grade	+	+	+
Ethyl alcohol + acetic acid (fermentation mixture)	is used in production	+	+		Jelly		+	+	+
Ethyl benzene	techn. grade	/	-						
Ethyl chloride (chloroethane)	techn. grade	-(b)			<b>K</b>				
Ethyl ether (diethyl ether)	techn. grade	/			Kerosene		/	/	-
Ethylene chloride	100%	/			Ketone	+to/			
Ethylene diamine (1,2-diaminoethane)	techn. grade	+	+		Kippers / pickled herring	+			
Ethylene dichloride (dichloroethane)		/			<b>L</b>				
Ethylene glycol		+	+	+	Lactic acid, aqueous	any	+	+	+
Ethylene oxide, gaseous	techn. grade	+			Lactose (milk sugar)		+	+	
Ethylenediamine tetraacetic acid		+	+		Lanolin (woolfat)		+	/	
					Latex		+	+	
					Lead acetate, aqueous	any	+	+	
					Lead tetraethyl		+		
					Lemon juice		+	+	
					Lemon oil		+		
					Lime		+	+	+
					Linseed oil	techn. grade	+	+	
					Liquid soaps		+	+	
					Lithium bromide		+	+	
					Lubricating oils	techn. grade	+		
					<b>M</b>				
					Machine oil		+	/	-
					Magnesium carbonate		+	+	
					Magnesium chloride, aqueous	any	+	+	
					Magnesium iodide		+	+	

SUBSTANCE	CONCENTRATION	20°C	60°C	100°C	SUBSTANCE	CONCENTRATION	20°C	60°C	100°C
Magnesium salts, aqueous	any	+	+	+	Phenol (carbolic acid)		+		+D
Magnesium sulphate, aqueous	any	+	+		Phenyl ethyl alcohol		+		
Maleic acid, aqueous	up to 10%	+	+		Phenyl hydrazine	techn. grade	/		
Manganese sulphate		+			Phenyl hydrazine hydrochloride		+		
Mash	as supplied	+	+		Phosgene, gaseous		/	/	
Mayonnaise		+			Phosgene, liquid	100%	-		
Menthol	100%	+			Phosphates, aqueous	any	+	+	
Mercury salts	cold saturated	+	+		Phosphoric acid, aqueous	50%	+	+	+
Metal soaps		+			Phosphorus oxychloride	100%	+	/	
Methacrylic acid		+	+		Phosphorus trichloride	100%	+		
Methanol	techn. grade	+	+		Photographic developers as commercial	+D	+D		
Methyl acetate (acetic acid methyl ester)	techn. grade	+	+		Photographic emulsions as commercial	+	+		
Methyl alcohol (methanol)	100%	+	+(b)		Phthalic acid ester	+	+	/	
Methyl benzene	/	/	-		Phthalic acid, aqueous	50%	+	+	
Methyl bromide (bromomethane), gaseous	techn. grade	-			Picric acid, aqueous	1%	+		
Methyl chloride (chloromethane), gaseous	techn. grade	-			Pine-needle oil		+	+	
Methyl ethyl ketone	techn. grade	+	/		Pineapple juice		+	+	
Methyl glycol		+	+		Plasticizers		+	/	
4-Methyl pentanol-2		+			Polyester plasticizers		+		
Methyl salicylate (salicylic acid methyl ester)		+			Polyester resins	/			
Methyl sulphuric acid	50%	+	+		Polyglycols		+	+	
Methylamine, aqueous	32%	+			Potassium borate, aqueous	1%	+	+	
Methylene chloride (dichloromethane)	/	-(b)			Potassium bromate, aqueous	up to 10%	+	+	+
Milk		+	+	+	Potassium carbonate (potash), aqueous	cold saturated	+	+	
Milk products		+	+	+	Potassium chlorate	any	+	+	+
Mineral oil (free from aromatic hydrocarbons)	+	/	-		Potassium chloride	any	+	+	+
Mineral water		+	+	+	Potassium chromate, aqueous	40%	+	+	+
Molasses		+	+		Potassium cyanide, aqueous	any	+	+	
Monochloroacetic acid		+	+		Potassium fluoride, aqueous	any	+	+	
Monochloroacetic acid ethyl ester		+	+		Potassium hydrogen carbonate, aqueous	saturated	+	+	
Monochlorobenzene		+			Potassium hydrogen sulfate, aqueous	saturated	+	+	+
Morpholine	100%	+	+		Potassium hydroxide	any	+	+	
Motor oil (heavy duty oil)		+	/		Potassium iodide	any	+	+	
					Potassium nitrate	any	+	+	
<b>N</b>					Potassium perchlorate, aqueous	1%	+	+	
Nail polish		+	/		Potassium permanganate	up to 6%	+		+D
Nail polish remover		+	/		Potassium persulphate	any	+	+	
Naphthalene	100%	+			Potassium sulphate	any	+	+	
Nickel chloride		+	+		Potassium sulphite, aqueous	saturated	+	+	
Nickel nitrate		+	+		Potassium thiosulphate, aqueous	saturated	+	+	
Nickel salts, aqueous	cold saturated	+	+		Potato (mashed)		+	+	
Nickel sulphated, aqueous	any	+	+		Propane, gaseous	techn. grade	+	+	
Nitric acid	10%	+	+		Propane, liquid	100%	+		
Nitric acid	25%	+	/		Propanol (propyl alcohol)		+	+	
Nitric acid	50%	/	-		n-Propanol (n-propyl alcohol)		+	+	
Nitric acid	68%	-	-		Propargyl alcohol, aqueous	7%	+	+	
Nitrobenzene	100%	+	/		Propylene dichloride	100%	-		
Nitrocellulose		+			Propylene glycol	100%	+	+	
o-Nitrotoluene		+	/		Pyridine	100%	/	/	
Nonyl alcohol (nonanol)		+							
Nut oil		+			<b>Q / R</b>				
					Quark		+		
<b>O</b>					Quinine		+	+	
Octyl cresol	techn. grade	/	-		Raw gasoline		/	-	
Oils, ethereal		/	-		Roasting gases, dry	any	+	+	
Oleic acid	100%	+	/	-	Rum		+	+	
Olive oil		+	+	+					
Orange juice		+	+		<b>S</b>				
Orange oil (sweet)		+			Salicylic acid		+	+	
Oxalic acid, aqueous	cold saturated	+	/		Salt brine	saturated	+	+	
Oxygen		+	+		Salt water	any	+	+	+
Ozone (<0,5 ppm)		+	/		Salt, dry		+	+	+
Ozone (50 ppm)		+	/		Sauerkraut (pickled cabbage)		+	+	+
					Sea water		+	+	+
<b>P</b>					Sewage		+	+	
Palm nut oil		+	/		Shoe polish		+	/	
Palmitic acid		+	+		Silicic acid, aqueous	any	+	+	
Paraffin		+	+	-	Silicone oil	techn. grade	+	+	
Paraffine emulsions	as commercial	+	+		Silver nitrate, aqueous	any	+	+	
Paraformaldehyde		+	+		Silver salts, aqueous	cold saturated	+	+	
Paraffin oil		+	/	-	Soap (bar)		+	+	
Pectin	cold saturated	+	+		Soap solution, aqueous	any	+	+	
Pentanol		+			Soda water		+		
Peppermint oil		+			Sodium acetate, aqueous	any	+	+	+
Pechloric acid, aqueous	20%	+	+		Sodium aluminium sulphate		+	+	
Perchloroethylene		/	-		Sodium benzoate, aqueous	any	+	+	
Perfume		+			Sodium borate		+	+	
Petroleum		+	/		Sodium bromide		+	+	
Petroleum ether		+	/		Sodium carbonate, aqueous		+	+	+
					Sodium chlorate	25%	+	+	



SUBSTANCE	CONCENTRATION	20°C	60°C	100°C	SUBSTANCE	CONCENTRATION	20°C	60°C	100°C
Sodium chloride, aqueous		+	+	+	V				
Sodium chromate		+	+		Vanilla		+		
Sodium cyanide		+	+		Vaseline	techn. grade	+	/	
Sodium dichromate		+	+		Vaseline oil	techn. grade	+	/	-
Sodium fluoride		+	+		Vegetables		+	+	+
Sodium hexacyanoferrate (II)		+	+		Vinyl acetate		+	/	
Sodium hexametaphosphate, aqueous	saturated	+	+		Viscose spinning solutions		+	+	
Sodium hydrogen sulphite, aqueous	saturated	+	+		Vitamin C		+		
Sodium hydroxide, aqueous	any	+	+						
Sodium hydroxide, solid	100%	+	+		W				
Sodium Ironcyanide		+	+		Walnut oil		+		
Sodium nitrate, aqueous	any	+	+		Wahing-up liquid	reay for use		+	+
Sodium perborate, aqueous	any	+	+	+	Wahing-up liquid	as commercial	+		
Sodium phosphate, aqueous	saturated	+	+	+	Waste gases containing carbon dioxide	any	+	+	
Sodium sulphate, aqueous	cold saturated	+	+	+	Waste gases containing hydrochloric acid	any	+	+	
Sodium sulphide, aqueous	saturated	+	+		Waste gases containing sulphur dioxide	low	+	+	
Sodium sulphite, aqueous	40%	+	+	+	Water	100%	+	+	+
Sodium thiosulphate, aqueous	saturated	+	+		Water glass		+	+	
Soft soap		+	+		Water, distilled		+	+	+
Soya bean oil		+	/		Waxes		+	+10/	
Spermaceti		+			Whey		+	+	
Spindle oil		+	-		Whisky		+		
Spirit of terpenfine	techn. grade	-			White spirit		/	-	
Spirits		+			Wine		+	+	
Standard grade petrol		/	-		Wine Vinegar (table vinegar)	as comercial	+	+	
Starch syrup		+	+		Wine, mulled		+	+	
Stearic acid	100%	+	/						
Styrene		/	-		X, Y, Z				
Sucinic acid, aqueous	cold saturated	+	+		Xylene	100%	/	-	
Sugar beet juice		+	+	+	Yeast	any	+		
Sugar solutions	any	+	+	+	Zinc carbonate		+	+	
Sugar syrup		+	+	+	Zinc oxide		+	+	+
Sulphates, aqueous solution	any	+	+		Zinc salts, aqueous	any	+	+	
Sulphur	100%	+	+	+	Zinc sludge		+	+	
Sulphur dioxide, aqueous	any	+	+		Zinc stearate		+	+	+
Sulphur dioxide, gaseous		+	+						
Sulphuric acid	98%	/	-						
Sulphuric acid, aqueous	10%	+	+	+					
Sulphuric acid, aqueous	70%	+	/						
Sulphuric acid, aqueous	85%	+	/						
Sulphuric acid, aqueous	up to 50%	+	+						
Sulphuric ether		/							
Sulphurous acid		+	+						
Sulphuryl chloride (sulphonyl chloride)	techn. grade	-							
<b>T</b>									
Tallow	techn. grade	+	+						
Tanning extracts vegetable	as commercial	+	/						
Tar		+	/						
Tataric acid, aqueous	cold saturated	+	+						
Tea leaves		+	+						
Terpentine		/	-						
Tetrachloroethane	100%	/	-						
Tetrachloroethylene (perchloroethylene)	100%	/	-						
Tetrahydrofurane	100%	/	-						
Tetrahydronaphthalene (tetralin)	100%	/	-						
Thioglycolic acid		+	+						
Thiophene	100%	/	-						
Tin (II) chloride, aqueous	any	+	+						
Tincture of iodine		+							
Toluene	techn. grade	/	-						
Tomato ketchup		+	+						
Toothpastes		+	+						
Transformer oil	techn. grade	+	/						
Tributyl phosphate		+	+						
Trichloroacetaldehyde (Chloral)	techn. grade	+	+						
Trichloroacetic acid	techn. grade	+	+						
Trichloroethylene	techn. grade	/	/						
Tricresyl phosphate		+	/						
Triethanolamine		+	+D						
Triethylene glyco		+	+						
Trimethylol propane, aqueous		+	+						
Trioctyl phosphate		+							
Trisodium phosphate		+	+						
Two-stroke oil		+							
<b>U</b>									
Urea, aqueous	cold saturated	+	+						
Urea, aqueous	up to 33%	+	+						
Uric acid		+							
Urine		+	+						



**DVGW-Baumusterprüfzertifikat**  
DVGW type examination certificate

DW-0118000260  
Registration number

**Anwendungsbereich**  
Field of application: Produkte der Wasserversorgung  
products of water supply

**Zertifizierthaber**  
owner of certificate: STP - Sociedad de Transformación de Plásticos, S.A.  
Ctra. de Montcada, 608. E-08223 Terrassa-Barcelona

**Hersteller**  
manufacturer: STP - Sociedad de Transformación de Plásticos, S.A.  
Ctra. de Montcada, 608. E-08223 Terrassa-Barcelona

**Produktart**  
product category: plastic fittings and compression fittings; plastic compression fitting for PE pipes (PE10)

**Produktbeschreibung**  
product description: plastic fitting made of PP-B to use with pipes made of PE-HD (PE 80) for drinking water supply

**Modell**  
model: PLAST

**Prüfberichte**  
test reports: laboratory control test: 3514686/1 (2006) from 15.10.2008 (SKZ)  
laboratory control test: 3514686/2 (2008) from 14.10.2008 (SKZ)  
laboratory control test: 3514686/3 (2008) from 14.10.2008 (SKZ)  
mechanical test: 4802102 from 08.07.2003 (SKZ)  
KTW testing: 13106-04 from 02.08.2008 (TZW)  
hygiene testing: MD 11584/9 from 13.03.2007 (TZW)

**Prüfungsort**  
test location: DVGW VP 608 (01.09.1985)  
CEN 6076-3 (01.08.1994)  
USA KTW (16.03.2007)  
DVGW W 370 (01.11.2007)

**Ablaufdatum / AZ**  
date of expiry / the no.: 08.07.2012 / 09-0424-WIV

**WRAS**  
Water Regulations Advisory Scheme

This certifies that  
**SOCIEDAD DE TRANSFORMACION DE PLASTICOS S.A.**  
has had the undermentioned product examined, tested and found, when correctly installed, to comply with the requirements of the United Kingdom Water Supply (Water Fittings) Regulations/Scottish Water Byelaws.

**PLAST UNIVERSAL KIT, T-PLAST & RE-PLAST UNIVERSAL COUPLINGS**

Reference should be made to the accompanying acceptance letter for installation requirements

The product as mentioned will be listed in the Water Fittings and Materials Directory for a period until:  
**14 DECEMBER 2015**

**1012036**  
Certificate No.

**WRAS**  
Water Regulations Advisory Scheme

This certifies that  
**SOCIEDAD DE TRANSFORMACION DE PLASTICOS S.A.**  
has had the undermentioned product examined, tested and found, when correctly installed, to comply with the requirements of the United Kingdom Water Supply (Water Fittings) Regulations/Scottish Water Byelaws.

**PLAST & PREMIUM PLAST RANGES OF COMPRESSION FITTINGS FOR USE WITH PE80 & PE100 PIPE**

Reference should be made to the accompanying acceptance letter for installation requirements

The product as mentioned will be listed in the Water Fittings and Materials Directory for a period until:  
**02 NOVEMBER 2015**

**1011025**  
Certificate No.

**WATER BYELAWS SCHEME**

This certifies that  
**STP**  
has had the undermentioned product examined, tested and found, when correctly installed, to comply with the requirements of the United Kingdom Water Byelaws and Regulations.

The product as mentioned will be listed in the Water Fittings and Materials Directory for a period of five years from 14/07/2008 (until 14/07/2013).

**PLAST COMPRESSION FITTINGS FOR USE WITH PE100**

**ICC-ES PMG Listing**

Effective Date: February 1, 2012  
This listing is subject to re-examination in one year.

**PMG-1116**

www.iccs-es.com | (800) 423-6587 | (602) 699-0543  
A Subsidiary of the International Code Council®

**CSI:** Division 22 00 00 - Plumbing  
Section: 22 11 10 - Domestic Water Piping

**Product certification system:**  
The ICC-ES product certification system includes testing samples taken from the market or supplier's stock, or a combination of both, to verify compliance with applicable codes and standards. The system also involves factory inspections, and assessment and surveillance of the supplier's quality system.

**Products:** PloPlast Polypropylene Compression Fittings

**Label:** PloPlast Compression Fittings  
P.O. Box 529  
Munster, TX 76202  
www.iccs-es.com

**Compliance with the following codes:**  
2012, 2009, 2006 International Plumbing Code® (IPC)  
2012, 2009, 2006 International Residential Code® (IRC)  
2009, 2006 Uniform Plumbing Code® (UPC)  
Uniform Plumbing Code is a copyrighted publication of the International Association of Plumbing and Mechanical Officials

**Compliance with the following standards:**  
ISO 14236 Mechanical Joint Compression Fittings for Use With Polyethylene Pressure Pipes in Water Supply Systems  
NSFANSI 61 - 2011 Drinking Water System Components - Health Effects

**Identification:**  
Fittings shall be marked with a least the manufacturer's name and/or trademark, type of fitting-body material (plastic fittings only), nominal outside diameter of the pipe for which the fitting is intended, nominal pressure, nominal diameter of the thread (if applicable), manufacturing code (if any) and ICC-ES PMG listing mark. The markings shall be permanent.

**Installation:**  
PloPlast Compression Fittings system must be installed in accordance with the manufacturer's published installation instructions. The applicable code and the listing. Where differences exist, the applicable code must govern.

**ATTESTATION DE CONFORMITE SANITAIRE**  
Conformément à l'article 29 de la loi 1987 modifiée et à la circulaire du Ministère de la Santé  
Direction Générale de la Santé DGS/DSDA, N° 071 du 25 Novembre 2002

**Coordonnées du demandeur d'ACS :**  
Sociedad de Transformación de Plásticos (STP)  
Ctra de Montcada, 608  
08223 TERRASSA (Barcelona)  
Espagne

**Nom de l'accessoire représenté :**  
Raccord à compression 709110H

**N° de dossier attribué par le laboratoire habilité :** 11 ACC HY 009

**Date de réalisation des essais d'inertie :** 10 février 2011  
Les essais d'inertie réalisés selon la norme NF P41-200 (test ball approved) accurate accurate.  
Les résultats sont conformes aux exigences de la circulaire DGS/DSDA N° 071 du 25 novembre 2002.  
Commentaire : /

**Famille d'accessoires couverte par l'ACS :**  
RACCORDS A COMPRESSION

**Références :**

Manchons de réparation:	725050K3	725050N	725050A
725050C3	725050K3	725050N	725050A
725050G3	725050K3	725050N	725050A
725050H3	725050K3	725050N	725050A
725110G3	725110K3	725110N	725110A

**Manchons :**

701010G3	701060G3	701090G3	701090K3
701020G3	701050G3	701020K3	701080K3
701030G3	701070G3	701030K3	701030N3
701030K3	701060G3	701030K3	701090K3
701040G3	701100G3	701040K3	701100K3

**Attestation délivrée par :** Manuel Latorre  
Responsable Alimentaire des Matériaux

**Signature :** [Signature]

**Date de délivrance :** 24 février 2011  
**Date d'expiration :** 24 février 2016

Page 1 of 1

**NSF International**  
RECOGNIZES

**Sociedad De Transformación De Plásticos S. A. (S.T.P.)**  
Spain

AS COMPLYING WITH NSFANSI 61 AND ALL APPLICABLE REQUIREMENTS, PRODUCTS APPEARING IN THE NSF OFFICIAL LISTING ARE AUTHORIZED TO BEAR THE NSF MARK.

**TYPGODKÄNNANDEBEVIS 0256/95**  
med försäkring om tillförlitlighet enligt 18:20 § lagen (1994:847) om tekniska specifikationer på byggsaker, m.m., SVE

**SAKORD: TAPPVATTEN**  
Fäpandor, kopplingsar  
kompressionskopplingar

**BSAB FN**

**3PE PLASTRÖRSKOPPLINGAR**

**Ursprung:** Heating Water Tapsco Systems AB, Box 30, S18 21 SANDARED, tel: 033-29 82 15, fax: 033-25 82 15

**Produkt:** Kompressionskopplingar tillverkade av PP (ämnetsnamn: 16-43 mm)

**Arvid:** Produkterna är avsedda för anslutning av PE-rör till drömlinor av kvaliteten. Kopplingen skall följande stycke. Maskinfäst koppling skall kunna gås in från botten av byggnaden eller utsläppskomponenter.

**Händelse:** 3 PE (Öljar) kopplingsarna i serie.

**Godkännande:** Ovanstående produkter godkänns enligt bestämmelserna i följande avsnitt i Svenskta Byggsaker (SVE) i de avsnitten och under de förutsättningar som anges i detta bevis. Produkterna appliceras enligt SVE: 2.3.3 SVL.

**Tappvatten, material:** 6.61, färdigt och tvättat stycke  
**Material, tillstånd etc.** 6.61, färdigt och tvättat stycke

**Tillämpningsområde:** Mönstringstapning, diameter 200-300 mm

**Kommit:** Tillverkningsföretagets namn skall utgå enligt bestämmelse d) i SVE: 2.3.3 SVL, Dnr 219-99-04-6 daterad 1999-03-31.

**Imperier:** Företagets namn (om imperier) skall utgå enligt följande bestämmelse: SVE: 2.3.3 SVL

**Tillverkare:** STP, Sociedad de Transformación de Plásticos SA Carretera de TERRASSA (Barcelona) España.

**Produktcertifikat**  
Nr. 1622

SINTEF Byggforsk bekrefter at  
**STP kompresjonskoplinger for PE-rør, dimensjon 16 – 90mm**  
er i samsvar med kravene i  
ISO 14236

Inneholder av sertifikatet:  
**STP S.A.**  
Carretera de Montcada 608  
E-08223 Terrassa-Barcelona

Producent:  
**STP S.A.**  
Carretera de Montcada 608  
E-08223 Terrassa-Barcelona

Utstedt: 03.02.2011  
Gyldig frem til: 01.04.2016

Produzenten har kontrollert med SKZ i Tyskland.

**Knut Ivar Edvardsson**  
Sertifiseringsleder

**Produsent:** SINTEF Byggforsk  
Postboks 122, Blindern, 0316 Oslo  
Telefon: 22 98 91 00 - Telefax: 22 98 91 18  
E-post: byggforsk@sinetf.no  
www.sinetf.no/byggforsk

**Produsent:** SINTEF Byggforsk  
1407 Torshovveien  
Telefon: 73 09 50 30 - Telefax: 73 09 52 00

**SABS**  
Permit to Apply Certification Mark

**HYDRÓFUSION FITTINGS (PTY) LTD**  
CATALANES, TERRASSA  
SPAIN

It is hereby certified that:

**SANS 14236:2003**  
TO: PLASTICS PIPES AND FITTINGS - MECHANICAL JOINT COMPRESSION FITTINGS FOR USE WITH POLYETHYLENE PRESSURE PIPES IN WATER SUPPLY SYSTEMS

The product, including details: 1. It has been examined and tested and found to comply with the requirements of the standard.

2. It has been found to comply with the requirements of the standard.

3. It has been found to comply with the requirements of the standard.

4. It has been found to comply with the requirements of the standard.

5. It has been found to comply with the requirements of the standard.

6. It has been found to comply with the requirements of the standard.

7. It has been found to comply with the requirements of the standard.

8. It has been found to comply with the requirements of the standard.

9. It has been found to comply with the requirements of the standard.

10. It has been found to comply with the requirements of the standard.

Product Number: 828313142

Issue Date: 20 October 2010

Expiry Date: 20 April 2013

Date of Original Approval: 11 April 2007

Author: [Signature]



**ITC**

**INSTITUT PRO TESTOVÁNÍ A CERTIFIKACI, a.s.**  
T. BÁTĚ 299, 704 21 ZLÍN, ČESKÁ REPUBLIKA

**ZPRÁVA O DOHLEDU**  
nad certifikovaným výrobkem  
čj. 3435 00203 / A / 2011

**Zadatel: FUSAMATIC FITTINGS s. r. o.**  
2. května 665, areál Slavie  
763 61 Napajedla

**Výrobek: Světlé spojky z PP (materiál ISPLEN PB 110 T8E)**  
d 18 mm až d 53 mm, tlaková řada PN 10,  
d 75 mm až d 126 mm, tlaková řada PN 10,  
a navrtávací objímky z PP, d 20 mm až d 200 mm,  
tlaková řada PN 10, na spojování tlakových  
trubek z polyetylénu pro rozvod vody

**Výrobce: STP, Sociedad de Transformación de Plásticos, S.A.**  
Ctra. de Montcada, 608-610,  
08223 Terrassa-Barcelona  
España

**Číslo certifikátu:** 09 0202 V1AO  
**Kontrolu provedl:** Ing. Vladimír Sedláček  
**Datum vydání:** 2011-07-25

**RNDr. Radomír Davat**  
předseda autorizovaného osoby

**INSTITUT TECHNIKI BUDOWLANEJ**  
PL 88-811 WARSZAWA, ul. PILTYRÓWA 1  
tel. +48 22 632 01 01, 02 623 57 00 / fax: +48 22 632 04 66

Sama **APROBATA TECHNICZNE**

**APROBATA TECHNICZNA ITB**  
AT-15-7874/2009

Na podstawie rozporządzenia Ministra Infrastruktury z dnia 8 listopada 2007 r. w sprawie badania technicznego oraz warunków organizacyjnych i kompetencji do ich wykonania (Dz. U. Nr 249/2007, poz. 3447), w wyniku rozporządzenia aprobacyjnego Głównego Inspektora Techniki Budowlanej w Warszawie na wniosek ITB:

**STP - Sociedad de Transformación de Plásticos S.A.**  
08223 Terrassa (Barcelona), Hispania

Przebieżbiornostwa Hantben-lakopone "HYDRORIO"  
B. Sotolaraš, B. Janes Ro,  
i. N. Sotolaraš, 08-003 Palasno

**Złączki zaciskowe PLAST z polipropylenu (PP) do rur polietylenowych**

w zakresie i na warunkach określonych w Załączniku, który jest integralną częścią niniejszego Aprobaty Technicznej ITB.

**Termin ważności:** 18 margo 2014 r.

**DIRECTOR**  
w/z Zarządca Dyktora  
w/z Zarządca Dyktora  
**Jan Balaż**

W Warszawie, 19 Margo 2009 r.

**ÉMI**  
EPTÉSŐGVI MŰNŐSÉGELLENŐRZŐ  
INNOVACIÓ KÖZHASZNÚ TÁRSASÁG  
H-1113 Budapest, Dániusz út 27. Levelezési: H-1118 Budapest, PF: 69  
Telefon: +36 (1) 172-8100 Fax: +36 (1) 386-8764  
E-mail: info@emi.hu; Marketing: http://www.emi.hu

**SOCIÉT D'UTILITÉ PUBLIQUE POUR LE CONTRÔLE DE LA QUALITÉ ET L'INNOVATION DU BÂTIMENT**  
NON-PROFIT COMPANY FOR QUALITY CONTROL AND INNOVATION IN BUILDING  
GEMEINSCHAFT FÜR QUALITÄTSKONTROLLE UND INNOVATION IM BAUBEREICH

A-1157/1994 **ÉME** **IE: A-2332/2008**

**TECHNICAL APPROVAL**  
for construction industry applications

**Product description: STP polypropylene compression fittings**

**Envisaged field of application: Providing mechanical pipe joints for buried polythene and metal water pipelines between standard polythene and polythene or polythene and metal pipes.**

**Applicant:** STP Sociedad de Transformación de Plásticos S.A. Ctra. de Montcada, 608-610, 08223 TERRASSA (Barcelona) SPAIN

**Manufacturer of the product:** STP Sociedad de Transformación de Plásticos S.A. Ctra. de Montcada, 608-610, 08223 TERRASSA (Barcelona) SPAIN

**ÉMI Kht. code (SZR) of the 5.5.4. product:**

**Valid:** until 12 February 2014

**Budapest, 12 February 2009**

(Sándor Horváth)  
Deputy General Manager  
Director for Quality Affairs and Marketing

**BULGARKONTROLA S.A.**  
QUALITY AND QUANTITY SURVEYS, LABORATORY ANALYSES  
PI COMMERCE SURVEYS & CLIME SETTING AGENT  
HALL & MACHINERY SURVEYS, CONFORMITY ASSESSMENT

**CERTIFICATE OF CONFORMITY FOR CONSTRUCTION PRODUCT**  
№ 010 - HHOCCP-112

In compliance with the Regulation on the essential requirements and conformity assessment of construction products, including Directive 89/100/EEC for construction products, it has been established that:

**FITTINGS AND ACCESSORIES MADE OF POLYPROPYLENE (PP-B)**  
with operating pressure PN 10 bar for size 18 - 133 and PN 10 bar for size 75 - 133, are designed for mechanical connection with pipe made of PE and with steel material of other materials, for construction of drinking water supply systems outside buildings and for connection to buildings, with product usage according to European EN 10325 for this certificate.

**RELEASED ON THE MARKET BY "VASIL VASILEV KVS-Z" Sole proprietorship**  
1756 Sofia, "Darvenitsa" blocks of flats, 2 "Darvenitska rebra" Str. BULSTAV EB2304871

**MANUFACTURED BY "STP, S.A. CRIDE MONTCADA, 608-610, 08223-TERRASSA (BARCELONA), SPAIN**  
under the conditions of introduced by the Manufacturer production control and specimens subjected to criteria herein established by a prescribed testing activities. "Certificate Assessment" Code of Bulgarkontrola S.A. has carried out vital test types of the products, preliminary audit of the production control, and specimen preparation according to the production control. This Certificate is issued that all relevant regulations have been applied and fulfilled with regard to the assessment of the production control and the requirements of

**ISO 14236:2000**

This Certificate is issued 29 June 2004 for the valid time and shall remain valid as long as the requirements of the technical specification have been fulfilled, and the production conditions or control do not change, but until the end of 2007 the latest.

**29 June 2004**  
Sofia

Director of Conformity Assessment Dept. L. Lyubanova

**Autorizovaná osoba č. 224**  
Institut pro testování a certifikaci, a. s., Zlín  
Autentizace číslo: TZ003 ze dne 28. června 2009

**CERTIFIKÁT**  
č. 04 0158 V1AO  
výrobek

**STP, Sociedad de Transformación de Plásticos, S.A.**  
Ctra. de Montcada, 608-610, 08223 Terrassa-Barcelona, España

**Modul mechanické spojky pro tlakové potrubí vyrobené z PE pro rozvod pitné vody v potrubí tlakové PN 10**

**Autentizované osobou č. 224**  
Institut pro testování a certifikaci, a. s., Zlín

Yuhua ze Zlín, 19. 6. 2004

**agrement tehnic 016-05/1800-2001**  
prelungeste agrement tehnic 016-05/670-1998

**FITINGURI DEMONTABILE PENTRU IMBINAREA TEVIOR DIN PE PENTRU INSTALATII DE ALIMENTARE CU APA**  
FITINGS FOR PE PIPS FOR WATER SUPPLY NETWORKS  
RACCORDES POUR TUYAUX EN PE POUR INSTALLATIONS AVEC DE L'EAU  
FITINGS FOR PE ROBBRE FOR WASSERZUHRITZ

**Trilari: S.T.P. S.A. - SPANIA**  
Ctra de Montcada 608-610, Terrassa  
tel: 34937312700; fax: 34937312160

**ITEXCO GROUP - Bucuresti**  
str. Negrus Vezi nr.2, BI.CA. nr.3, ap.90  
tel/fax: 0040-1-3213680

**IC SOCIETAL PRO INSTALATII SRL**  
str. Vitei Terezi nr. 2, CNJ Hicovca  
tel: 004-417099; fax: 004-417989

**SC PIPIELILE ROMANIA SRL**  
str. Mircea Alexandru nr. 4, Bucuresti  
tel: 001-212946; fax: 01-3123648

**Productor: SOCIEDAD DE TRANSFORMACION DE PLASTICOS SA**  
Ctra. De Montcada 608-610, 08223 Terrassa (Barcelona)  
SPANIA  
tel.: 0034937312700; fax: 0034937312166

**COMISIA DE AGREMENT TEHNIC IN CONSTRUCTII**

**ICECON SA - Bucuresti - Institut de Cercetari pentru Echipamente**  
si Tehnologii de Mecanizati Constructiv  
Sos. Pantelimon 256, sector 2, Cod Postal P. 559, C.P. 3-33  
Tel: 0040-1-2551725; 0040-1-2530734; Fax: 0040-1-2551420

**Grupa specializata nr. 5: Producator, proceduri si echipamente pentru instalatii de incalzire, ventilatie, climatizare, sanitare, gaze si electrice**

**Prezentul Agrement tehnic este valabil numai in scopul de acordul Comisiei de Agrement Tehnic in Constructii din Romania**

**МІНСКІЯ РАІОНСЬКА САКАГАДРІЯ-ІНЖЫНІРСЬКА СПЕЦІАЛІЗАВАНА ПРАЧЭВАНЬСЬКА АСЯ**

**АТЭСТАЦЫЯ**  
на адрасе прадукцыі і вытворца

**Високая прадукцыя сямпера-адрасаваных прадукцый**  
№ 83. 63. 2004 г.

**СІ ВІДОКАВАНЫ**

**Выводзіцца прадукцыя:** СІ ВІДОКАВАНЫ  
1. СІ ВІДОКАВАНЫ: СІ ВІДОКАВАНЫ: СІ ВІДОКАВАНЫ  
2. СІ ВІДОКАВАНЫ: СІ ВІДОКАВАНЫ: СІ ВІДОКАВАНЫ

**Выводзіцца прадукцыя:** СІ ВІДОКАВАНЫ  
1. СІ ВІДОКАВАНЫ: СІ ВІДОКАВАНЫ: СІ ВІДОКАВАНЫ  
2. СІ ВІДОКАВАНЫ: СІ ВІДОКАВАНЫ: СІ ВІДОКАВАНЫ

**ДЪРЖАВНА АГЕНЦИЯ ПО СТАНДАРТИЗАЦИЯ И МЕТРОЛОГИИ**

**СВИДЕТЕЛСТВО**  
№ 003/04

Сила на валиденост до 30.04.2007 г.  
Издание го. 04.04.2007 г.

**ПРЕДСТАВИТЕЛСТВО**  
Продуктите на "Metalica S.A. de C.V." из Панама са признати за конформни с техническите изисквания на стандарта EN 10224:2001 за метални съединители за водоснабдяване.

**ПРЕДСТАВИТЕЛСТВО**  
Продуктите на "Metalica S.A. de C.V." из Панама са признати за конформни с техническите изисквания на стандарта EN 10224:2001 за метални съединители за водоснабдяване.

**CERTIFICACIÓN MEXICANA, S.C.**  
Otorga el presente  
**CERTIFICADO DE PRODUCTO**  
DE CONFORMIDAD CON LA NORMA OFICIAL MEXICANA  
**NOM-002-CONAGUA-1995**

"Sector agua - Toma directa para el abastecimiento de agua potable - Especificaciones y métodos de prueba"

A la empresa:  
**Productora Metálica, S.A. de C.V.**

**CERTIFICADO DE PRODUCTO A:**  
Conexiones de polipropileno: Cople reducido, Cople de reparación, adaptador macho, adaptador hembra y codo para toma domiciliaria en diámetro de 1/2" y 3/4" y válvula de inserción y válvula de banqueta de polipropileno para toma domiciliaria en diámetro de 1/2" y 3/4"

Opción: Muestra y ensayo de producto por Sistema de Control de Calidad

**Ing. Roberto Vargas Soto**  
Director General

**Selo Anotat**  
Conform

Otorga el certificado de conformidad bajo el signo CONTE para el producto y grupo de productos de conformidad técnica CONTE para el producto:

**ACCESORIOS EN POLIETILENA PARA CONDUCCION DE AGUA POTABLE, ACCESORIOS (VALVULAS DE HEMERA, CODO) CON PARTIDAS DE PROTECCION INTERNA Y EXTERNA PARA CONDUCCION DE AGUA POTABLE**

**ACUATUBOS S.A.**  
str. Elena Ceaușescu nr. 40, Bucuresti  
tel: 0040-1-212946; fax: 01-3123648

**SOCIEDAD DE TRANSFORMACIÓN DE PLÁSTICOS S.A.** - Ctra de Montcada, 608-610, Terrassa, Barcelona

**Elaboración por:** SOCIEDAD DE TRANSFORMACIÓN DE PLÁSTICOS S.A., Ctra de Montcada, 608-610, Terrassa, Barcelona

**Elaboración por:** SOCIEDAD DE TRANSFORMACIÓN DE PLÁSTICOS S.A., Ctra de Montcada, 608-610, Terrassa, Barcelona

**Elaboración por:** SOCIEDAD DE TRANSFORMACIÓN DE PLÁSTICOS S.A., Ctra de Montcada, 608-610, Terrassa, Barcelona



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