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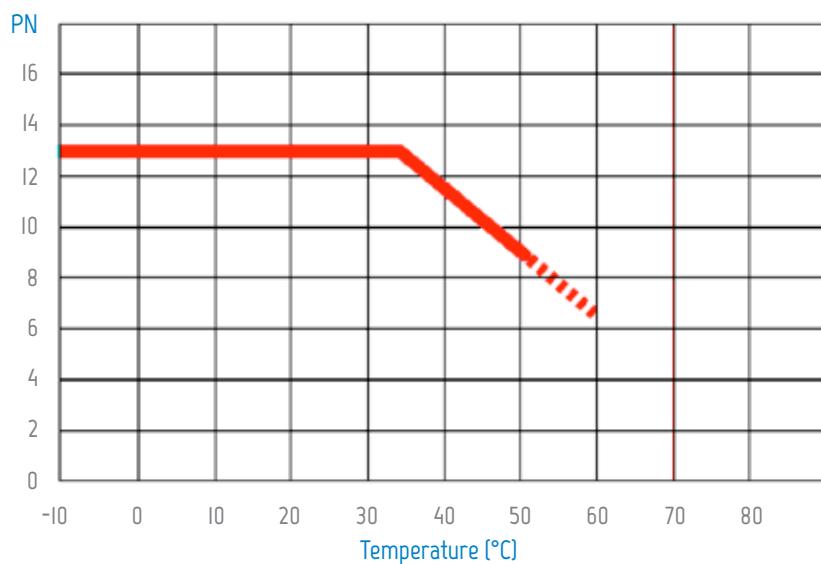
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|        |     |     |     |     |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |
|--------|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| KW     | 1,5 | 3   | 4   | 5,5 | 7,5  | 10   | 12,5 | 15   | 18   | 22   | 29   | 37   | 45   | 55   | 74    | 92    | 110   | 132   | 170   | 200   |
| CV     | 2   | 4   | 6   | 7,5 | 10   | 15   | 17   | 20   | 25   | 30   | 40   | 50   | 60   | 75   | 100   | 125   | 150   | 180   | 230   | 270   |
| Nr/min | 230 | 400 | 600 | 900 | 1200 | 1750 | 2000 | 2500 | 3000 | 3500 | 4500 | 5500 | 7000 | 8500 | 12000 | 15000 | 18000 | 21000 | 26000 | 31000 |



**plant length > lunghezza dell'impianto > distancias al punto de aplicacion**

According to the distance from the compressor to the most distant user and to the required flow, this table let you calculate the best F-Line diameter for your network, taking in consideration that the values refer to a closed ring at a pressure of 8 bar with a maximum pressure loss of 5.

Questa tabella ci permette, in funzione della distanza dal compressore all'utenza più lontana e della portata richiesta, di determinare il diametro F-Line più indicato alla nostra rete, tenendo presente che questi dati, a titolo indicativo, considerano un anello chiuso ad una pressione di 8 bar con una perdita di carico massima del 5.

Teniendo en cuenta la distancia entre el compresor y el punto más distante de la instalación y la presión requerida, esta tabla le permitirá calcular el diámetro apropiado de su instalación F-Line. Esta tabla es tomada en consideración para valores referidos a un anillo cerrado con una presión de 8 bar y con una perdida de carga máxima del 5.

|                   |        | meters |    |     |     |     |     |     |     |      |  |
|-------------------|--------|--------|----|-----|-----|-----|-----|-----|-----|------|--|
| Nm <sup>3/h</sup> | NL/min | 25     | 50 | 100 | 150 | 200 | 300 | 400 | 500 | 1000 |  |
| 36                | 600    | 16     | 16 | 20  | 20  | 25  | 25  | 25  | 25  | 32   |  |
| 54                | 900    | 16     | 20 | 20  | 25  | 25  | 25  | 32  | 32  | 40   |  |
| 72                | 1200   | 20     | 25 | 25  | 25  | 32  | 32  | 32  | 32  | 40   |  |
| 105               | 1750   | 25     | 25 | 32  | 32  | 32  | 40  | 40  | 40  | 50   |  |
| 150               | 2500   | 25     | 32 | 32  | 32  | 40  | 40  | 40  | 50  | 50   |  |
| 210               | 3500   | 32     | 32 | 40  | 40  | 40  | 50  | 50  | 50  | 63   |  |
| 270               | 4500   | 32     | 32 | 40  | 40  | 50  | 50  | 50  | 50  | 63   |  |
| 360               | 6000   | 40     | 40 | 40  | 50  | 50  | 50  | 63  | 63  | 63   |  |
| 510               | 8500   | 40     | 40 | 50  | 50  | 50  | 63  | 63  | 63  | 80   |  |
| 720               | 12000  | 50     | 50 | 50  | 63  | 63  | 63  | 80  | 80  | 80   |  |
| 1080              | 18000  | 50     | 63 | 63  | 63  | 80  | 80  | 80  | 80  | 80   |  |
| 1260              | 21000  | 63     | 63 | 63  | 80  | 80  | 80  | 80  | 80  | 80   |  |
| 1860              | 31000  | 63     | 80 | 80  | 80  | 80  | 80  | 80  | 80  | 80   |  |
| 2700              | 45000  | 80     | 80 | 80  |     |     |     |     |     |      |  |



## [flow drops fittings table](#) > tabella perdite di carico dei raccordi > *tabla de pérdidas de carga de los racores*

This table is an another useful help in order to get a right plant dimensioning. Each fitting determines a loss of charge and the table indicates the correspondence to pipe meters for every assembled fitting; the equivalent length obtained from all fittings will be added to the average length of the installed pipe.

Questa tabella è un ulteriore aiuto per dimensionare nel modo più corretto possibile il nostro impianto. Ogni raccordo utilizzato determina una perdita di carico e nella tabella vi è una corrispondenza in metri di tubo per tipologia di raccordo, di conseguenza la lunghezza equivalente andrà sommata alla lunghezza media del tubo utilizzato.

*Esta tabla es otra herramienta muy útil a la hora de elegir el correcto dimensionamiento de su instalación. Cada racor tiene una pérdida de carga y la tabla determina una correspondencia entre cada racor instalado con una longitud de tubería, la suma de las longitudes obtenidas con todos los racores de la instalación debe ser promediada y tenida en cuenta a la hora de la elección del diámetro y longitudes de la tubería.*

| sizes | fittings' types |     |     |     |     |     |     |    |    |
|-------|-----------------|-----|-----|-----|-----|-----|-----|----|----|
|       | UC              | G   | UL  | ULH | UT  | GT  | CP  | BR | WL |
| 16    | 0,1             |     | 0,7 |     | 0,1 |     | 0,1 |    | 2  |
| 20    | 0,2             |     | 1,2 | 1   | 0,2 |     | 0,2 |    | 3  |
| 25    | 0,2             |     | 2   | 1,3 | 0,3 | 1,8 | 0,2 | 2  | 4  |
| 32    | 0,3             | 0,8 | 3   | 1,5 | 0,3 | 2,4 | 0,3 | 3  |    |
| 40    | 0,3             | 1,2 | 3,6 | 1,8 | 0,4 | 3,5 | 0,3 | 4  |    |
| 50    | 0,4             | 1,6 | 4,3 | 2,1 | 0,4 | 5,5 | 0,4 | 6  |    |
| 63    | 0,5             |     | 5   |     | 0,5 |     | 0,4 | 7  |    |
| 80    | 0,7             |     | 6,4 |     | 0,5 |     | 0,4 | 9  |    |

# > Quick derivations



The F-Line quick branches have been designed to allow the final user to get a quick branch without cutting the main pipeline. Moreover, thanks to its special design, the air intake of the descent is positioned above the level where the condensation collects in order to grant an excellent air quality.

Le prese di derivazione F-Line sono state progettate per permettere all'utilizzatore finale di realizzare una rapida derivazione, detta calata, senza la necessità di tagliare il tubo principale. Grazie al particolare disegno del componente, inoltre, la presa d'aria per la calata è posta al di sopra del livello di formazione di condensa, garantendo così un'ottima qualità dell'aria nelle calate.

Las bridas de derivación rápidas han sido diseñadas para permitir al usuario la instalación de una línea de bajada sin necesidad de cortar el tubo de la línea principal. Además, gracias al diseño de la brida, la toma de aire para la bajante está situada a un nivel superior al de las condensaciones, proporcionando un aire de excelente calidad.



From the picture you can see that the air intake is positioned above the lowered level of the condensation

Dalla figura si può vedere che la presa d'aria per la calata è posizionata sopra il livello di formazione della condensa

De la figura se puede ver que la toma de aire se sitúa por encima de la disminución del nivel de condensación

## installation > installazione > instalación

Position the branch according to the applicative requirement



Posizionare la derivazione secondo le esigenze applicative

Posicionar la brida de acuerdo con los requisitos de la aplicación

**Mark the chosen position near the reference notches**



Segnare la posizione prescelta in prossimità delle tacche di riferimento

Marcar sobre la tubería la posición elegida tomando como guías las marcas de referencia de la brida

**Rotate the branch by 180° and position it near the reference marks previously layed out**



Ruotare la derivazione di 180° riposizionandola in prossimità dei segni di riferimento precedentemente tracciati

Rotar la brida 180 y posicionarla sobre la marca de referencia previamente marcada sobre el tubo

**Hole the pipe by a bimetallic hollow mill inside the template**



Forare il tubo con una fresa a tazza bimetallica all'interno della dima

Perforar la tubería con la herramienta de perforación a través de la plantilla de la brida

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



Rimuovere la presa di derivazione e pulire il foro aiutandosi con apposito sbavatore

Remover y limpiar las virutas de aluminio con ayuda de la herramienta de desbarbado

**Fix the branch and aligne the reference notches again to the marks you layed out**



Fissare la presa di derivazione allineando nuovamente le tacche di riferimento ai segni realizzati

Colocar la brida y alinearla con la marca de referencia marcadas sobre la tubería y fijarla definitivamente

# > Thermal expansions



Most materials change their dimensions according to temperature variations. Metal materials are more liable to lower variations than plastic ones. Usually they expand when the temperature rises and contract when the temperature drops. Here below some examples with the most common materials.

Al variare della temperatura la maggior parte dei materiali subiscono delle variazioni dimensionali, nel caso dei metalli molto contenute e nel caso delle materie plastiche decisamente più evidenti; in genere si dilatano al crescere delle temperature e si contraggono al diminuire della temperatura stessa. Ecco qui di seguito alcuni esempi con i principali materiali che costituiscono ad oggi le reti di aria compressa.

*La mayoría de los materiales cambian sus dimensiones en función de las variaciones de la temperatura. Los materiales metálicos tienen menores variaciones que los materiales plásticos. Normalmente se dilatan cuando la temperatura aumenta y se contraen cuando bajan las temperaturas. Aquí debajo están algunos ejemplos con los materiales más habituales.*

|                                 |   |
|---------------------------------|---|
| steel > acciaio > acero         | $12,8 \times 10^{-6} \text{ m/m } ^\circ\text{C}$ |
| copper > rame > cobre           | $16,5 \times 10^{-6} \text{ m/m } ^\circ\text{C}$ |
| aluminum > alluminio > aluminio | $23 \times 10^{-6} \text{ m/m } ^\circ\text{C}$   |
| ABS                             | $101 \times 10^{-6} \text{ m/m } ^\circ\text{C}$  |
| PVDF                            | $120 \times 10^{-6} \text{ m/m } ^\circ\text{C}$  |
| PP                              | $150 \times 10^{-6} \text{ m/m } ^\circ\text{C}$  |
| PE                              | $200 \times 10^{-6} \text{ m/m } ^\circ\text{C}$  |

It's important to check the dimensional changes due to temperature variations in order to avoid that the expansion/contraction effects may cause heavy damages to the plant; for that reason it's necessary to sustain and bracket the plant in order to let the pipeline free slide between two fixed points or otherwise to insert a compensator between two fixed points if they are positioned at a distance which may cause sensible contractions/expansions. For the system F-Line with aluminum tube this coefficient C is equal to 0,023 mm/m/°C.

Dobbiamo tener conto delle variazioni dimensionali dovute ai fenomeni di variazione di temperatura per evitare che gli effetti della dilatazione o della contrazione possano causare gravi danni all'impianto; proprio per questo motivo è necessario supportare e staffare l'impianto in modo che la tubazione possa scorrere liberamente tra due punti fissi. Se viceversa tra due punti fissi vi è una distanza tale da comportare una sensibile dilatazione, occorre inserire tra essi un compensatore di dilatazione. Per il sistema F-Line con tubo in alluminio tale coefficiente C è pari a 0,023 mm/m/°C.

*Es importante verificar las modificaciones de dimensiones que se puedan producir debido a los cambios de temperatura para prevenir que la dilatación/contracción de los materiales puedan causar daños a la instalación. Por ese motivo es necesario que las sujetaciones de la tubería permitan el deslizamiento de la misma sin resistencia alguna y si fuese necesario instalar un compensador entre dos puntos fijos si están posicionados de manera que pudiesen sufrir variaciones considerables. Para el sistema con tubo en aluminio este coeficiente C equivale a 0,023mm/ml/°C.*



contraction - expansion of aluminum tube > contrazione - dilatazione del tubo in alluminio > contracción - ampliación de tubo de aluminio carga de los racores

| L (m) | $\Delta L$ [mm]         |                         |                         |                         |                         |                         |
|-------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|       | $\Delta T = 10^\circ C$ | $\Delta T = 15^\circ C$ | $\Delta T = 25^\circ C$ | $\Delta T = 30^\circ C$ | $\Delta T = 35^\circ C$ | $\Delta T = 40^\circ C$ |
| 30    | 6,9                     | 10,35                   | 17,25                   | 20,7                    | 34,15                   | 27,6                    |
| 40    | 9,2                     | 13,8                    | 23                      | 27,6                    | 32,2                    | 36,8                    |
| 50    | 11,5                    | 17,25                   | 28,75                   | 34,5                    | 40,25                   | 46                      |
| 60    | 13,8                    | 20,7                    | 34,5                    | 41,4                    | 48,3                    | 55,2                    |
| 70    | 16,1                    | 24,15                   | 40,25                   | 48,3                    | 56,35                   | 64,4                    |
| 80    | 18,4                    | 27,6                    | 46                      | 55,2                    | 64,4                    | 73,6                    |
| 90    | 20,7                    | 31,05                   | 51,75                   | 62,1                    | 72,45                   | 82,8                    |
| 100   | 23                      | 34,5                    | 57,5                    | 69                      | 80,5                    | 92                      |

Table of contraction - expansion depending on the length L of a straight stretch and the temperature difference  $\Delta T$

Tabella di contrazione - dilatazione in funzione della lunghezza L di un tratto di rettilineo e della differenza di temperatura  $\Delta T$

Tabla de contracción - expansión de la longitud L de un tramo recto de la diferencia de temperatura  $\Delta T$

The design and the construction of any plant will consider this phenomenon which is calculated with the following formula:

$$\Delta L = d \times L \times \Delta T$$

LEGEND:

d= coefficient of lateral expansion

L= length of piping

$\Delta T$ = difference of temperature in centigrade

$\Delta L$ = difference of length (expansion or contraction)

Example: temperature is +10°C; length of piping 20 m; working temperature 35°C

$$\Delta T = 35-10 = 25^\circ C$$

$$\Delta L = 0,023 \times 20 \times 25 = 11,5 \text{ mm}$$

La progettazione e l'esecuzione di qualsiasi impianto dovrà tener conto di questo fenomeno che si calcola con la formula seguente:

$$\Delta L = d \times L \times \Delta T$$

LEGENDA:

d= coefficiente di dilatazione lineare

L= lunghezza delle tubazioni

$\Delta T$ = differenza di temperatura in °C

$\Delta L$ = differenza di lunghezza (dilatazione o contrazione)

Esempio: temperatura +10°C; lunghezza tubazione 20 m; temperatura d'esercizio 35°C

$$\Delta T = 35-10 = 25^\circ C$$

$$\Delta L = 0,023 \times 20 \times 25 = 11,5 \text{ mm}$$

La planificación y la construcción de cualquier planta tendrá que considerar este fenmeno que se calcula con la siguiente fórmula:

$$\Delta L = d \times L \times \Delta T$$

LEYENDA:

d= coeficiente de expansión lateral

L= longitud de la tubería

$\Delta T$ = diferencia de temperatura en °C

$\Delta L$ = diferencia de longitud (expansión o contracción)

Ejemplo: temperatura +10°C; longitud de tubería 20 m; temperatura de ejercicio 35°C

$$\Delta T = 35-10 = 25^\circ C$$

$$\Delta L = 0,023 \times 20 \times 25 = 11,5 \text{ mm}$$

# > Thermal expansions



For this reason we suggest you as compensation method the "LIRA" one, obtained with rigid pipes or direction changes with flexible pipes which are perfectly homogeneous with the plant and of easy and cheap installation. Moreover the soft pipe F-Line suits easily to the other fittings of the range thanks to aluminum end fittings which allow an immediate installation without any preparation or cut. Even though its strength keeps minimum bending radius, it shows a reduced block which avoids any mechanical constriction on the network, it also offers an excellent compatibility with lubricating oils for compressors.

A questo proposito suggeriamo di intervenire con lire formate con tubazioni rigide o cambi di direzione con tubazioni flessibili che sono perfettamente omogenei all'impianto risultando una soluzione pratica ed economica per il sistema. Inoltre il tubo morbido F-Line si raccorda facilmente agli altri raccordi della gamma grazie ai codoli terminali in alluminio che consentono un montaggio istantaneo senza preparazione ne taglio. Nonostante la sua robustezza mantiene minimi raggi di curvatura presenta, inoltre un ingombro ridotto che evita qualsiasi costrizione meccanica sulla rete; garantisce anche un'eccellente compatibilità con gli olii dei compressori.

*Por este motivo sugerimos el uso de un método de compensación mediante una lira de dilatación, colocada entre tramos de tubería rígida mediante una tubería flexible, totalmente integrada en la instalación y de un coste muy bajo e instalación sencilla. Las tuberías flexibles F-Line son de fácil montaje en la red, gracias al empleo de conexiones de acometida con roscas fabricadas en aluminio que permiten la inmediata instalación sin ninguna preparación o corte; incluso en zonas con reducido radio de curvatura, evitando estrangulamientos en la red y ofreciendo una excelente compatibilidad con los lubricantes de los compresores.*

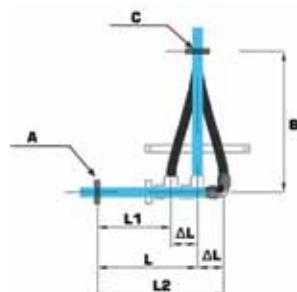


| D  | L    |
|----|------|
| 25 | 0,80 |
| 32 | 0,96 |
| 40 | 1,20 |
| 50 | 1,40 |
| 63 | 1,60 |

D= diameter - L= flexible tube length

D= diámetro - L= longitud del tubo flexible

D= diametro - L= lunghezza tubo flessibile



**L**= pipeline length at the installation  
**L1**= length with minimum temperature  
**L2**= length with maximum temperature  
**ΔL**= Length difference due to  $\Delta T$   
**B**= Length of the arms of the Lira or of the direction change  
**A**= Sliding bracketing  
**C**= Fixed bracketing

**L**= lunghezza della tubazione all'atto dell'installazione  
**L1**= lunghezza alla temperatura minima  
**L2**= lunghezza alla temperatura massima  
**ΔL**= Differenza di lunghezza dovuta a  $\Delta T$   
**B**= lunghezza del braccio della Lira o del cambio di direzione  
**A**= Ancoraggio scorrevole  
**C**= Ancoraggio fisso

**L**= longitud del tubo en la instalación  
**L1**= longitud a la temperatura mínima  
**L2**= longitud a la temperatura máxima  
**ΔL**= diferencia en la longitud debido a  $\Delta T$   
**B**= Longitud del brazo de la lira o del cambio de dirección  
**A**= puertas corredizas de anclaje  
**C**= enclaje fijo



Avoid anchoring the expansion joint to two connections aligned to the same plan



Evitare di ancorare il giunto di dilatazione a due raccodi diritti allineati sullo stesso piano

Evitar anclar la junta de expansión a los dos racores alineados sobre el mismo plano

Always install the expansion joint facing upwards and not downwards in order to avoid a deposit of the condensation



Per evitare depositi di condensa, installare sempre il giunto di dilatazione rivolto verso l'alto e non verso il basso

Instalar siempre la junta de expansión boca arriba y nunca boca abajo para evitar un depósito de condensación

This is the correct application of the installation of expansion joint. It should be facing up and with two elbows aligned. You need also to insert two clips on the pipe aluminum fasteners close to the installation of an expansion joint



Questa è l'applicazione corretta dell'installazione del giunto di dilatazione. Deve essere rivolto verso l'alto e con due raccordi a gomito allineati. Inoltre bisogna inserire due clip fermatubo sulla tubazione in alluminio in prossimità dell'installazione di un giunto di dilatazione

Esta es la aplicación correcta de la instalación de la junta de dilatación. Debe quedar hacia arriba y con dos codos alineados. También se necesita insertar dos clips en la sujeción de tuberías de aluminio en las proximidades de la instalación de una junta de dilatación

# > Bracketing method



For the F-Line pipes anchorage it's necessary to use the brackets of the catalogues. A special attention has to be paid in choosing the pipe brackets as they have to keep the pipeline perfectly straight and sustain the pipeline itself and the weight of all the sliding accessories as well as fix all the brackets well. For that reason the brackets are positioned in order to avoid any contact with fittings or other accessories liable to block the sliding of the pipe.

Per l'ancoraggio dei tubi F-Line è necessario utilizzare tassativamente i supporti fermatubo presenti sul catalogo. Questa operazione richiede infatti una cura particolare, anche perché i supporti fermatubo hanno la funzione di mantenere la tubazione perfettamente rettilinea, sostenendo il carico della tubazione stessa e di tutti gli accessori, bloccandola bene agli ancoraggi, ma consentendo lo scorrimento assiale del tubo; a tal proposito non devono essere posti a contatto di raccordi o altri accessori che potrebbero bloccare lo scorrimento del tubo.

Para el soporte de las tuberías del sistema F-Line, es necesario el empleo de las sujetaciones presentes en nuestro catálogo. Se debe prestar especial atención a la instalación de las fijaciones, ya que ellas deben mantener el peso de la tubería, mantenerla perfectamente recta y permitir eventuales desplazamientos que por los efectos que las variaciones de la temperatura se puedan producir. Por ese motivo se debe evitar que las fijaciones puedan estar en contacto con los racores u otros accesorios que pudieran impedir o bloquear un eventual desplazamiento de la tubería.

| Ø<br>mm | D     |      |      |
|---------|-------|------|------|
|         | <20°C | 30°C | 40°C |
| 16      | 2     | 2    | 1,5  |
| 20      | 2,5   | 2    | 1,5  |
| 25      | 3     | 2,5  | 2    |
| 32      | 3,5   | 3    | 2,5  |
| 40      | 4     | 3,5  | 3    |
| 50      | 4     | 3,5  | 3    |
| 63      | 4     | 3,5  | 3    |

D= Spacing in meters related to the maximum temperature difference

D= Distanza espressa in metri in funzione della temperatura massima

D= Distancia en metros en función de la temperatura máxima

The F-Line safety stop can be used both in horizontal or vertical position. Place the safety stop at the desired height and open the hook with a screwdriver



Le fermatubo F-Line possono essere impiegate sia in posizione verticale che orizzontale. Posizionare la fermatubo all'altezza desiderata e aprire il gancio con l'aiuto di un cacciavite

Los elementos de sujeción se pueden utilizar tanto en posición horizontal como vertical. Colocar la sujeción a la altura deseada y liberar el gancho con un destornillador



All pipe brackets packagings contain an M8 hexagonal nut to be inserted in the foreseen site inside the bracket (by using a threaded bar). It's also possible to use self-tapping screws with a screw-anchor in case of installation on a wall or concrete

Tutti i fermatubo sono dotati all'interno delle proprie confezioni di un dado esagonale M8 da inserire, avvolendosi di una barra filettata, nell'apposita sede predisposta all'interno del supporto. è inoltre possibile utilizzare viti autofilettanti con tassello ad espansione nel caso di fissaggio su muratura e calcestruzzo

Todas las sujetaciones de tubería incluyen una tuerca hexagonal M8 que debe ser roscada en el orificio dispuesto para tal fin en el soporte. También es posible su aplicación con varillas roscadas en el caso de fijación sobre muros y hormigón



You can secure the safety stop to any type of clamping system and then insert the tube into the safety stop and set the hook

È possibile fissare il fermatubo ad ogni tipo di sistema di staffaggio e successivamente inserire il tubo nel fermatubo e fissare il gancio

Puede instalar las fijaciones en cualquier tipo de sistema de sujeción y una vez fijado, introducir el tubo y ajustar el gancho



The range of fasteners should be supplemented by the modular spacers that act as compensation to put the base of the safety stop

La gamma dei fermatubo è completata dai distanziali modulari che svolgono il ruolo di compensatori da mettere alle base del fermatubo

La gama de elementos de sujeción debe completarse con los separadores modulares que actúan como compensación para poner sobre la base de sujeción

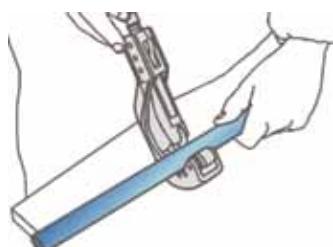
# > Installation



The F-Line system has been designed according to the installer's and the end user's needs. For that reason the flexible system allows to realize networks for compressed air easily, quickly and technologically advanced. However the installation has to be well done from qualified personal by following the indications supplied with the maximum precision, in order to obtain the requested safety, reliability and performance results. During the installation we suggest you to seal all threads accurately using suitable products in proper quantities and to foresee the possibility of segmenting parts of the pipeline which are liable to maintenance, not to be forced to stop the piping system totally. We also recommend that pipelines have to follow a light slope towards a condensation collection and a draining point. All maintenance operations must be done with the drained system and it's advisable not to lay the system underground in order to grant its constant maintenance or, if necessary, in case of canalization, provide the system with sump pits. In order to obtain an excellent quality of air, we suggest you a good filtration level before blocking the air inside the pipeline.

Il sistema F-Line è stato realizzato tenendo ben in considerazione le esigenze dell'installatore e dell'utilizzatore finale; proprio per questo motivo il sistema flessibile permette di realizzare reti di aria compressa in modo facile, veloce e tecnologico. Tutto questo non preclude il fatto che il montaggio debba essere realizzato a regola d'arte da personale autorizzato e qualificato, seguendo con assoluta precisione le indicazioni da noi fornite per ottenere risultati di affidabilità, sicurezza ed elevate prestazioni. In fase di installazione si consiglia di guarnire i filetti con cura con prodotti corretti e in sufficiente quantità e prevedere sempre vari sezionamenti della rete per eventuali interventi di manutenzione o di ampliamento della rete stessa; si raccomanda inoltre di dare sempre una leggera pendenza alla linea e prevedere un punto più basso per la raccolta dell'eventuale condensa. Tutte le operazioni di manutenzione devono essere effettuate con l'impianto scarico e, per garantire opportuni controlli di manutenzione, evitare di interrare l'impianto o, se necessario canalizzarlo, provvedere a lasciare opportuni pozzetti di ispezione. Per ottenere una buona qualità dell'aria raccomandiamo un buon livello di filtrazione prima dell'immissione in rete.

El sistema F-Line ha sido diseñado teniendo en cuenta las necesidades tipo de cada aplicación; por ese motivo el sistema permite una flexibilidad a la hora de realizar las instalaciones de aire comprimido de una manera fácil y rápida sin renunciar a un producto que ofrezca garantías y alta tecnología. Sin embargo la instalación debe ser realizada de una manera correcta y por personal cualificado, siguiendo las indicaciones descritas por el fabricante con la máxima precisión, con el objeto de obtener una instalación segura, rentable y de buenas prestaciones. Durante la instalación se recomienda el sellado de todas las roscas usando el producto adecuado y previendo la posibilidad de segmentar partes de la instalación para su mantenimiento sin obligar a una parada total de la instalación. También se recomienda que todo el sistema neumático disponga de purgas manuales o automáticas, a fin de controlar las posibles acumulaciones de condensados en las redes principales. Para obtener una excelente calidad del aire se recomienda un buen nivel de filtración antes de la entrada del aire a la instalación y en cada una de las derivaciones o tomas.



Check the pipe surface condition and make a neat and straight cut at right angle at the desired size

Verificare lo stato della superficie del tubo ed eseguire con l'apposita tagliatubi un taglio ad angolo retto in corrispondenza della misura desiderata

Comprobar la superficie de la tubería y hacer un corte limpio con el ángulo adecuado a la longitud necesaria



Chamfer the just made cut on the pipe external surface and remove any deburr and cut scraps which may be present inside the pneumatic equipments



Con l'apposito smussature intervenire sulla parte esterna ed interna del tubo tagliato ed eliminare possibili sbavature e residui di taglio evitando che possano andare a depositarsi all'interno di apparecchiature pneumatiche

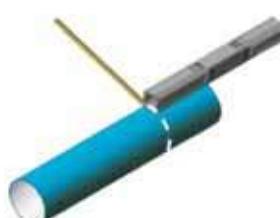
Chaflanar correctamente la superficie externa de la tubería y retirar cualquier rebaba o viruta que pudiera haber dentro de la misma, para impedir que pueda llegar a cualquier herramienta, maquinaria o elemento neumático



Fully tighten the fitting ring nut without excessively forcing

Avvitare a fondo la ghiera del raccordo senza forzare eccessivamente

Roscar completamente la tuerca de apriete del racor sin llegar a forzarla



Visualize on the pipe the depth to stop indicated by the socket depth meter, then unscrew the ring nut, previously completely screwed, having it make half a counterclockwise turn

Con l'apposito calettatometro marcare sul tubo la profondità di inserimento che funge da riferimento alla battuta interna del raccordo, poi svitare di mezzo giro la ghiera precedentemente avviata a mano

Visualizar sobre la tubería la profundidad correcta a la que tiene que llegar, usando el medidor de profundidad. Desenroscar completamente la tuerca de apriete del racor y volver a roschar media vuelta



Lubricate the contact surface of the o'ring gasket with vaseline grease or other suitable sliding means and introduce the pipe into the fitting pushing it to stop



Con l'ausilio di grasso di vaselina o di appositi scivolanti, lubrificare la guarnizione del raccordo ed inserire il tubo nel raccordo fino all'arresto del tubo in corrispondenza della battuta

Lubricar la superficie de contacto de la junta tórica con vaselina industrial o con cualquier otro producto que facilite el deslizamiento al introducir completamente la tubería y hacerla llegar a su tope

pipe inserting > inserimento del tubo > inserción del tubo

|      |         |
|------|---------|
| Ø 16 | > 38 mm |
| Ø 20 | > 48 mm |
| Ø 25 | > 52 mm |
| Ø 32 | > 62 mm |
| Ø 40 | > 70 mm |
| Ø 50 | > 79 mm |
| Ø 63 | > 80 mm |



Fully tighten the ring nut and then rotate up to 180° maximum using a pin wrench of suitable size

Stringere a fondo la ghiera del raccordo e successivamente ruotare ancora fino ad un massimo di 180° con una chiave a settore di adeguate dimensioni

Roscar completamente la tuerca de apriete del racor. A continuación fijar la tuerca de apriete hasta 180° utilizando la llave correcta y del tamaño adecuado

If the fitting has been tightened correctly the ring nut base will stop in the middle of the tightening indicator. The ring nut brake will act as anti-screwing in case of excessive vibrations



Se il raccordo è stato montato correttamente la base della ghiera si posizionerà a metà dell'indicatore di serraggio. Il freno ghiera ha la funzione di impedire un accidentale svitamento in caso di vibrazioni eccessive

Si el racor ha sido ajustado correctamente, la base de la tuerca de apriete estará en medio del indicador. El freno del anillo actuará como sistema anti-desenrosque en caso de excesivas vibraciones



# > Tubes



[technical specifications](#) > [specifiche tecniche](#) > [especificaciones técnicas](#)

---

[materials](#) > [materiali](#) > [materiales](#)

|   |  |   |
|---|--|---|
| ◦ Aluminum AN AW 6060 T6.<br>Manufactured with seamless extrusion.<br>Exterior surface painted with polyester powder. | ◦ Aluminio AN AW 6060 T6.<br>Prodotto con estrusione senza saldatura<br>Superficie esterna verniciata con polvere di poliestere. | ◦ Aluminio AN AW 6060 T6.<br>Fabricado mediante extrusión sin fisuras.<br>Superficie exterior pintado con polvo de poliéster. |
| Resistant to mechanical shocks, radius U.V.<br>Fire resistance. Not power and not spread the flames.                  | Resistente a shock meccanici, raggi U.V.<br>Resistenza al fuoco. Non alimenta e non propaga le fiamme.                           | Resistente a los golpes mecánicos, rayos U.V. Resistencia al fuego. No alimenta ni propaga las llamas                         |

---

[working pressure](#) > [pressione d'esercizio](#) > [presión de trabajo](#)

|   |   |  |
|---|---|--|
| Air, water and not aggressive gases:<br>◦ 13 Bar<br>Vacuum level:<br>◦ 98,7% with max pressure to 13 mbar | Aria, acqua e gas neutri:<br>◦ 13 Bar<br>Livello di vuoto:<br>◦ 98,7 % pressione massima di 13 mbar | Aire, agua y gases inertes:<br>◦ 13 Bar<br>Nivel de vacío:<br>◦ 98,7 % con presión máxima de 13 mbar |
|---|---|--|

---

[working temperature](#) > [temperatura d'esercizio](#) > [temperatura de trabajo](#)

|                      |                   |                   |
|----------------------|-------------------|-------------------|
| ◦ From -10°C to 90°C | ◦ Da -10°C a 90°C | ◦ De -10°C a 90°C |
|----------------------|-------------------|-------------------|



## technical specifications > specifiche tecniche > especificaciones técnicas

### materials > materiali > materiales

#### TUC:

- Black synthetic rubber reinforced with braided steel.
- Resistant to mineral and vegetal oils, glycol and polyglycol-based.
- Suitable for water and vacuum flow.

#### TUC:

- Gomma sintetica nera con rinforzo in acciaio trecciato.
- Resistente agli olii minerali, vegetali a base di glicoli e poliglicoli.
- Idoneo a passaggio d'acqua e vuoto.

#### TUC:

- Caucho sintético negro reforzado con malla de acero.
- Resistente a los aceites minerales y vegetales y base glicoles y poliglicoles.
- Apto para el paso de agua y vacío.

#### TUX:

- SBR/EPDM black rubber with synthetic textile inserts and SBR rubber substrate.
- Smooth textile surface.
- Resistant to abrasion.
- Weather conditions and age

#### TUX:

- Gomma SBR/EPDM nera con inserti tessili sintetici e sottostrato in gomma SBR.
- Superficie liscia ad impressione tela.
- Resistente all'abrasione, agli agenti atmosferici e all'invecchiamento.

#### TUX:

- Caucho SBR/EPDM negro con insertos textiles sintéticos y sustrato en caucho SBR.
- Superficie lisa de tela.
- Resistencia a la abrasión, a las intemperies y al envejecimiento.

### working pressure > pressione d'esercizio > presión de trabajo

#### TUC:

- 40 Bar

#### TUX:

- 40 Bar

#### TUC:

- 40 Bar

#### TUX:

- 40 Bar

#### TUC:

- 40 Bar

#### TUX:

- 40 Bar

### working temperature > temperatura d'esercizio > temperatura de trabajo

#### TUC:

- From -40°C to 100°C

#### TUC:

- Da -40°C a 100°C

#### TUC:

- De -40°C a 100°C

#### TUX:

- From -30°C to 70°C

#### TUX:

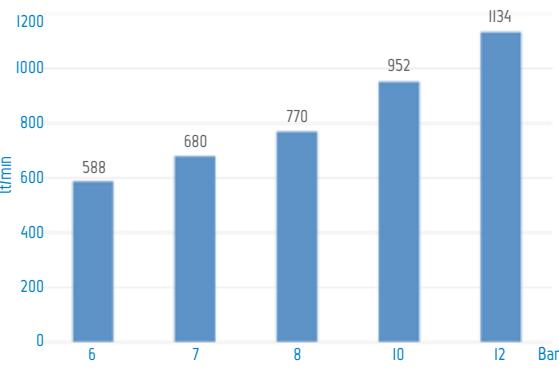
- Da -30°C a 70°C

#### TUX:

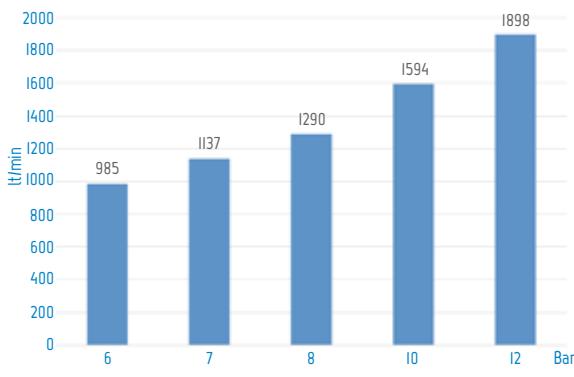
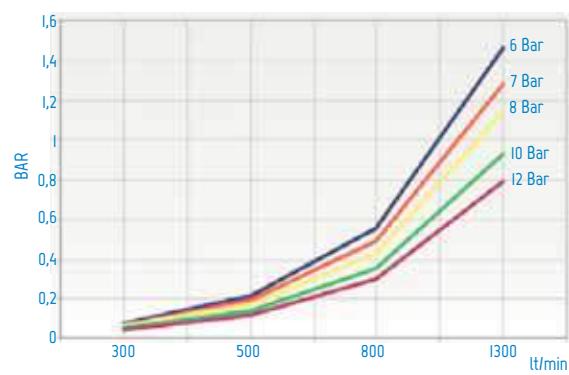
- De -30°C a 70°C

## > Flow charts & Flow drop charts

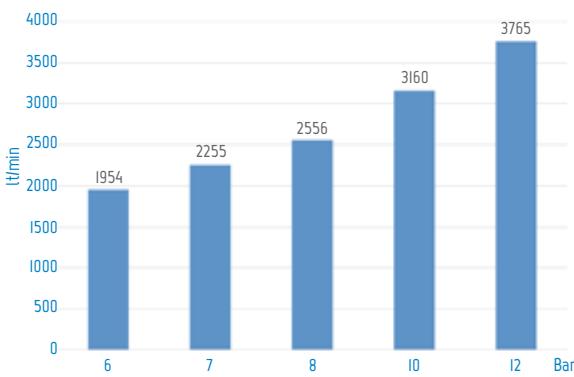
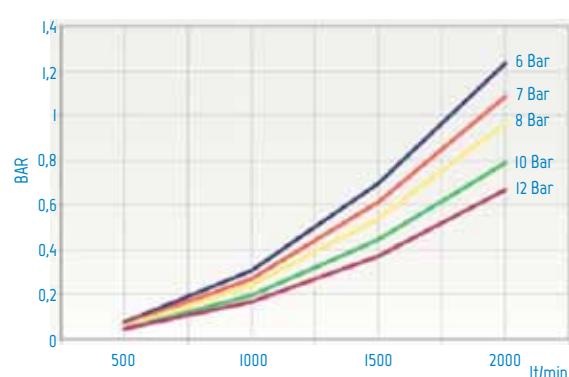
flow charts tubes considering 30 meters > tabelle di portata dei tubi considerando una tratta di 30 metri  
 > tablas de caudal considerando una serie de tuberías de 30 metros



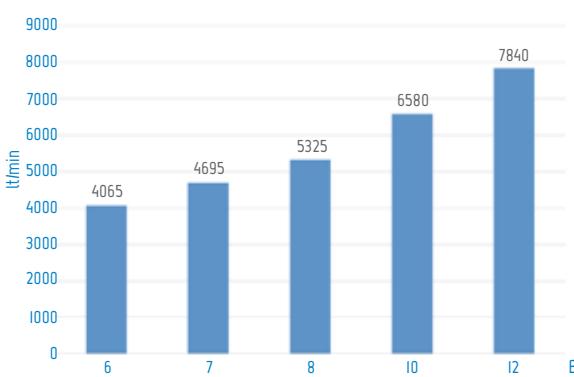
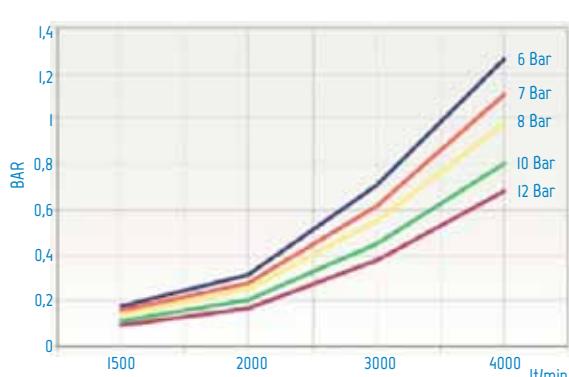
Ø 16



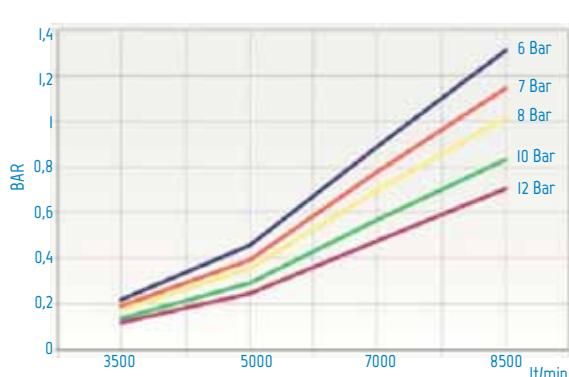
Ø 20



Ø 25

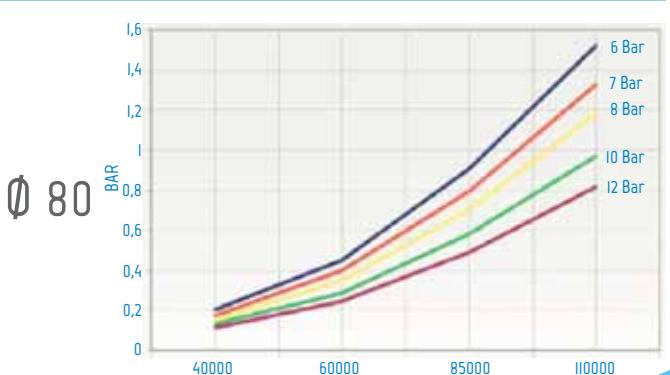
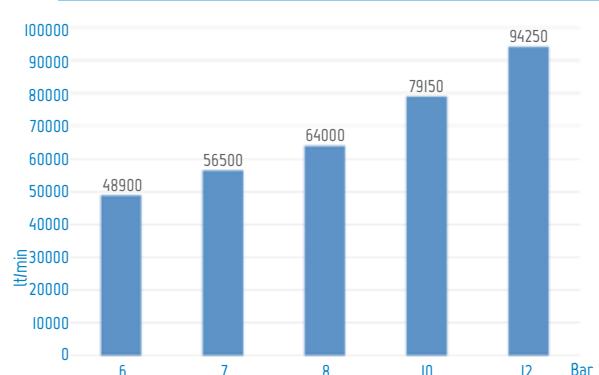
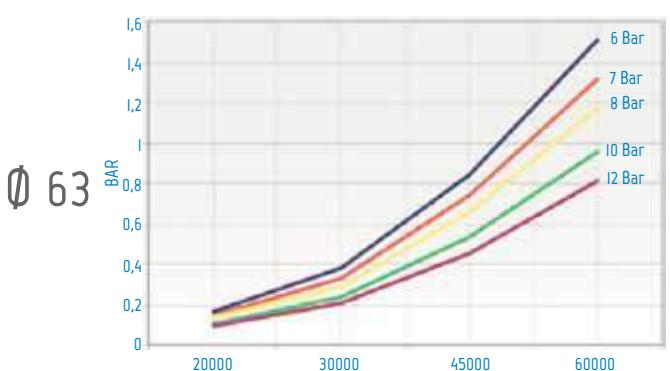
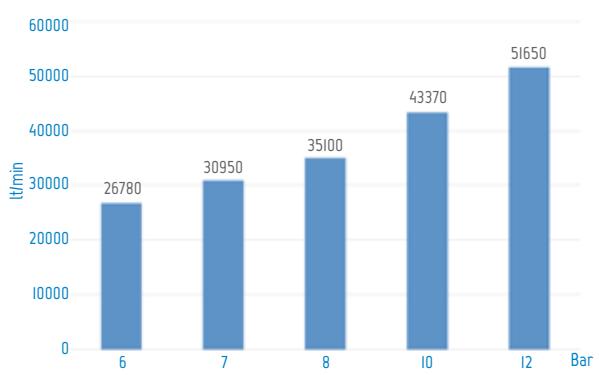
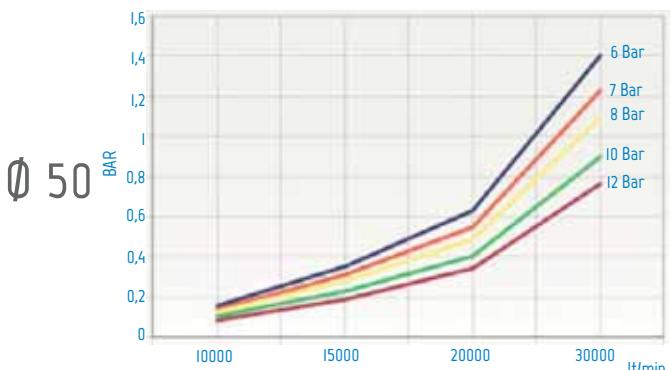
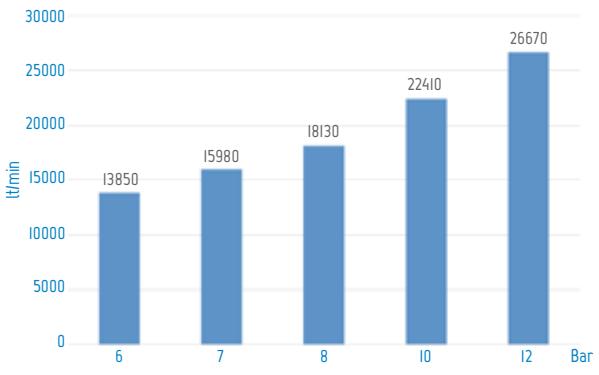
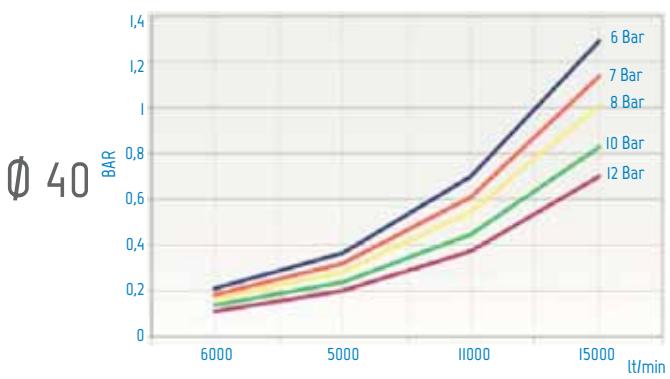
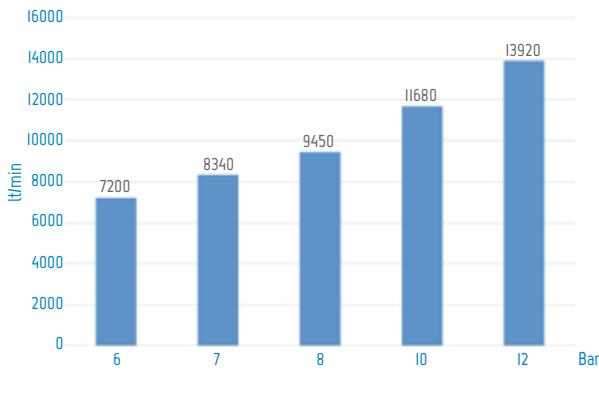


Ø 32



## > Flow charts & Flow drop charts

flow charts tubes considering 30 meters > tabelle di portata dei tubi considerando una tratta di 30 metri  
 > tablas de caudal considerando una serie de tuberías de 30 metros

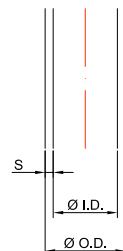


aluminum pipe 4 meter light blue > tubo alluminio da 4 metri azzurro > tubo de aluminio 4 metros azul

### AL-4AZ



| CODE          | Ø O.D. | Ø I.D. | S   | color | bar length | weight [g/m] | □ |
|---------------|--------|--------|-----|-------|------------|--------------|---|
| F-AL 1614-4AZ | 16     | 14     | 1   | ●     | 4 m        | 100          | I |
| F-AL 2017-4AZ | 20     | 17     | 1,3 | ●     | 4 m        | 200          | I |
| F-AL 2522-4AZ | 25     | 22     | 1,4 | ●     | 4 m        | 275          | I |
| F-AL 3229-4AZ | 32     | 29     | 1,5 | ●     | 4 m        | 400          | I |
| F-AL 4036-4AZ | 40     | 36     | 1,8 | ●     | 4 m        | 585          | I |

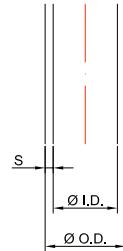


aluminum pipe 6 meter light blue > tubo alluminio da 6 metri azzurro > tubo de aluminio 6 metros azul

### AL-6AZ



| CODE          | Ø O.D. | Ø I.D. | S   | color | bar length | weight [g/m] | □ |
|---------------|--------|--------|-----|-------|------------|--------------|---|
| F-AL 2017-6AZ | 20     | 17     | 1,3 | ●     | 6 m        | 200          | I |
| F-AL 2522-6AZ | 25     | 22     | 1,4 | ●     | 6 m        | 275          | I |
| F-AL 3229-6AZ | 32     | 29     | 1,5 | ●     | 6 m        | 400          | I |
| F-AL 4036-6AZ | 40     | 36     | 1,8 | ●     | 6 m        | 585          | I |
| F-AL 5046-6AZ | 50     | 46     | 2   | ●     | 6 m        | 820          | I |
| F-AL 6359-6AZ | 63     | 59     | 2   | ●     | 6 m        | 1050         | I |
| F-AL 8075-6AZ | 80     | 75,2   | 2,4 | ●     | 6 m        | 1580         | I |

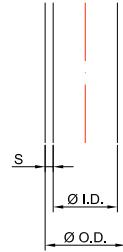


aluminum pipe 6 meter grey > tubo alluminio da 6 metri grigio > tubo de aluminio 6 metros gris

### AL-6GR



| CODE          | Ø O.D. | Ø I.D. | S   | color | bar length | weight [g/m] | □ |
|---------------|--------|--------|-----|-------|------------|--------------|---|
| F-AL 2017-6GR | 20     | 17     | 1,3 | ●     | 6 m        | 200          | I |
| F-AL 2522-6GR | 25     | 22     | 1,4 | ●     | 6 m        | 275          | I |
| F-AL 3229-6GR | 32     | 29     | 1,5 | ●     | 6 m        | 400          | I |
| F-AL 4036-6GR | 40     | 36     | 1,8 | ●     | 6 m        | 585          | I |
| F-AL 5046-6GR | 50     | 46     | 2   | ●     | 6 m        | 820          | I |
| F-AL 6359-6GR | 63     | 59     | 2   | ●     | 6 m        | 1050         | I |
| F-AL 8075-6GR | 80     | 75     | 2,4 | ●     | 6 m        | 1580         | I |

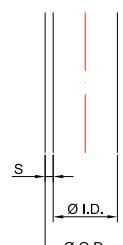


aluminum pipe 6 meter green > tubo alluminio da 6 metri verde > tubo de aluminio 6 metros verde

### AL-6VD



| CODE          | Ø O.D. | Ø I.D. | S   | color | bar length | weight [g/m] | □ |
|---------------|--------|--------|-----|-------|------------|--------------|---|
| F-AL 2017-6VD | 20     | 17     | 1,3 | ●     | 6 m        | 200          | I |
| F-AL 2522-6VD | 25     | 22     | 1,4 | ●     | 6 m        | 275          | I |
| F-AL 4036-6VD | 40     | 36     | 1,8 | ●     | 6 m        | 585          | I |



air&fluid distibution network <

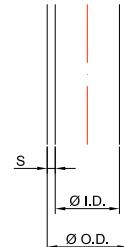
tubes <

**tube compressor complete with female swivel fittings** > tubo compressore completo di raccordi diritti femmina girevoli  
*tubo compresor completo con racores giratorios hembras*

**TUC**



| CODE       | Ø I.D. | Ø O.D. | thread | bending radius mm | L   | weight [g] | ✉ |
|------------|--------|--------|--------|-------------------|-----|------------|---|
| F-TUC 2506 | 25     | 36     | 1"     | 38                | 50  | 2600       | I |
| F-TUC 3207 | 32     | 43     | 1 1/4" | 48                | 90  | 3700       | I |
| F-TUC 4008 | 40     | 50     | 1 1/2" | 52                | 132 | 4600       | I |
| F-TUC 5009 | 50     | 63     | 2"     | 62                | 212 | 6500       | I |



**flexible expansion joint** > compensatore di dilatazione flessibile > junta de dilatación flexibles

**TUX**



| CODE       | Ø I.D. | Ø O.D. | D  | bending radius mm | L      | weight [g] | ✉ |
|------------|--------|--------|----|-------------------|--------|------------|---|
| F-TUX 2500 | 25     | 39     | 25 | 250               | 1,00 m | 700        | I |
| F-TUX 3200 | 32     | 48     | 32 | 320               | 1,25 m | 1500       | I |
| F-TUX 4000 | 40     | 56     | 40 | 400               | 1,50 m | 1900       | I |
| F-TUX 5000 | 50     | 69     | 50 | 510               | 2,00 m | 3400       | I |



**anti-whiplash kit** > kit anti-colpo di frusta > antilatigazo kit

**AWHP**



| CODE   | weight [g] | ✉ |
|--------|------------|---|
| F-AWHP | 0,30       | I |

# > Plastic Fittings



[technical specifications](#) > [specifiche tecniche](#) > [especificaciones técnicas](#)

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[materials](#) > [materiali](#) > [materiales](#)

16 - 20 - 25 - 32 - 40 - 50

16 - 20 - 25 - 32 - 40 - 50

16 - 20 - 25 - 32 - 40 - 50

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[materials](#) > [materiali](#) > [materiales](#)

**Ring Nut, Body, Push ring,  
Threaded inserts, Applique body (WL)  
e Quick Branches body:  
• POLYAMIDE 6 (ISO 1043)**

Ghiera, Corpo, Anello di Spinta,  
Inserti Filettati, Corpi Applique (WL)  
Corpi Prese di Derivazione:  
• POLIAMMIDE 6 (ISO 1043)

Tuerca, Cuerpo, Anilla de Empuje,  
Insertos Roscados, Cuerpo Applique (WL)  
e Cuerpos Bridas de Derivacion:  
• POLIAMIDA 6 (ISO 1043)

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**Split Ring:  
• Stainless Steel Inox  
X10CrNi18-8 (UNI-ENI10088)**

Anello di Serraggio:  
• ACCIAIO INOX X10CRNI18-8  
(UNI-ENI10088)

Anilla de Cierre:  
• ACERO INOXIDABLE X10CRNI18-8  
(UNI-ENI10088)

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**Gaskets:  
• NBR 70 (ISO1043)**

Guarnizioni:  
• NBR 70 (ISO1043)

Juntas:  
• NBR 70 (ISO1043)

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[working pressure](#) > [pressione d'esercizio](#) > [presión de trabajo](#)

◦ 13 Bar

◦ 13 Bar

◦ 13 Bar

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[working temperature](#) > [temperatura d'esercizio](#) > [temperatura de trabajo](#)

◦ From -10°C to 75°C

◦ Da -10°C a 75°C

◦ De -10°C a 75°C

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[applications](#) > [applicazioni](#) > [aplicaciones](#)

◦ Suitable for compressed air  
industries

◦ Idoneo per impianti aria compressa

◦ Adecuado para conexiones de aire  
comprimido

# > Aluminum Fittings



technical specifications > specifiche tecniche > especificaciones técnicas

---

materials > materiali > materiales

|   |   |   |
|---|---|---|
| 63 - 80   | 63 - 80   | 63 - 80   |
| 16 - 20 - 25 - 32 - 40 - 50 available on demand | 16 - 20 - 25 - 32 - 40 - 50 disponibili a richiesta | 16 - 20 - 25 - 32 - 40 - 50 disponibles bajo petición |

---

materials > materiali > materiales

|   |  |  |
|---|--|--|
| Aluminum body:<br>◦ ALUMINUM ALLOY EN-AW 2011<br>(UNI-EN 755-2) | Corpo in Alluminio:<br>◦ ALLUMINIO LEGA EN-AW 2011<br>(UNI-EN 755-2) | Cuerpo en Aluminio:<br>◦ ALUMINIO EN-AW 2011<br>(UNI-EN 755-2) |
|---|--|--|

---

|  |   |  |
|--|---|--|
| Split Ring:<br>◦ Stainless Steel Inox<br>X10CrNi18-8 (UNI-EN10088) | Anello di Serraggio:<br>◦ ACCIAIO INOX X10CRNI18-8<br>(UNI-EN10088) | Anilla de Cierre:<br>◦ ACERO INOXIDABLE X10CRNI18-8<br>(UNI-EN10088) |
|--|---|--|

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|                                |                                    |                               |
|--------------------------------|------------------------------------|-------------------------------|
| Gaskets:<br>◦ NBR 70 (ISO1043) | Guarnizioni:<br>◦ NBR 70 (ISO1043) | Juntas:<br>◦ NBR 70 (ISO1043) |
|--------------------------------|------------------------------------|-------------------------------|

---

working pressure > pressione d'esercizio > presión de trabajo

|          |          |          |
|----------|----------|----------|
| ◦ 16 Bar | ◦ 16 Bar | ◦ 16 Bar |
|----------|----------|----------|

---

working temperature > temperatura d'esercizio > temperatura de trabajo

|                      |                   |                   |
|----------------------|-------------------|-------------------|
| ◦ From -40°C to 80°C | ◦ Da -40°C a 80°C | ◦ De -40°C a 80°C |
|----------------------|-------------------|-------------------|

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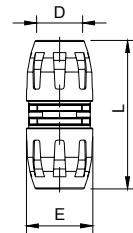
applications > applicazioni > aplicaciones

|   |   |  |
|---|---|--|
| ◦ Suitable for compressed air,<br>vacuum, gas not dangerous   | ◦ Idoneo per impianti aria compressa,<br>vuoto, gas inerti  | ◦ Adecuado para aire comprimido,<br>vacío, gases inertes   |
| ◦ Excellent resistance to:<br>corrosion, aggressive environments,<br>mechanical shock, thermal variations,<br>UV rays | ◦ Ottima resistenza a:<br>corrosione, ambienti aggressivi, shock<br>meccanici, variazioni termiche, raggi<br>U.V. | ◦ Excelente resistencia a la:<br>corrosión, ambientes agresivos,<br>shock mecánicos, variaciones térmicas,<br>ray U.V. |

**union connector > intermedio diritto > unión directo intermedio**

**UC**

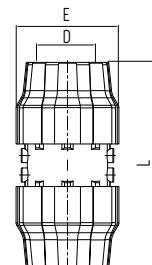

| CODE      | D  | L   | E  | inserting | weight (g) | Box |
|-----------|----|-----|----|-----------|------------|-----|
| F-UC 1600 | 16 | 81  | 37 | 38        | 50         | 10  |
| F-UC 2000 | 20 | 98  | 45 | 48        | 90         | 10  |
| F-UC 2500 | 25 | 106 | 51 | 52        | 132        | 10  |
| F-UC 3200 | 32 | 124 | 61 | 62        | 212        | 6   |
| F-UC 4000 | 40 | 142 | 75 | 70        | 350        | 4   |
| F-UC 5000 | 50 | 161 | 87 | 79        | 505        | 3   |



**aluminum union connector > intermedio diritto in alluminio > unión directo intermedio en aluminio**

**UC-AL**

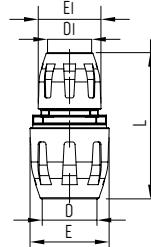

| CODE        | D  | L   | E   | inserting | weight (g) | Box |
|-------------|----|-----|-----|-----------|------------|-----|
| F-UC 6300AL | 63 | 193 | 97  | 95        | 890        | 1   |
| F-UC 8000AL | 80 | 232 | 116 | 114       | 1490       | 1   |



**reduced union connector > intermedio diritto ridotto > unión directo reducido intermedio**

**G**


| CODE     | D  | DI | L   | E  | EI | inserting | inserting<br>I | weight<br>(g) | Box |
|----------|----|----|-----|----|----|-----------|----------------|---------------|-----|
| F-G 2520 | 25 | 20 | 101 | 51 | 45 | 52        | 48             | 120           | 10  |
| F-G 3225 | 32 | 25 | 115 | 61 | 51 | 62        | 52             | 178           | 7   |
| F-G 4025 | 40 | 25 | 125 | 75 | 51 | 70        | 52             | 230           | 5   |
| F-G 4032 | 40 | 32 | 133 | 75 | 61 | 70        | 62             | 290           | 5   |
| F-G 5040 | 50 | 40 | 151 | 87 | 75 | 79        | 70             | 450           | 2   |



# air&fluid distibution network <

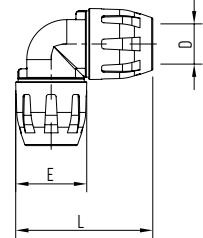
## fittings <

**union elbow** > intermedio a gomito > *codo intermedio*

**UL**



| CODE      | D  | L   | E  | inserting | weight (g) | □  |
|-----------|----|-----|----|-----------|------------|----|
| F-UL 1600 | 16 | 72  | 37 | 38        | 70         | 20 |
| F-UL 2000 | 20 | 86  | 45 | 48        | 100        | 10 |
| F-UL 2500 | 25 | 95  | 51 | 52        | 140        | 8  |
| F-UL 3200 | 32 | 122 | 61 | 62        | 240        | 4  |
| F-UL 4000 | 40 | 130 | 75 | 70        | 390        | 2  |
| F-UL 5000 | 50 | 152 | 87 | 79        | 580        | 2  |

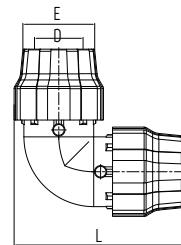


**aluminum union elbow** > intermedio a gomito in alluminio > *codo intermedio en aluminio*

**UL-AL**



| CODE        | D  | L   | E   | inserting | weight (g) | □ |
|-------------|----|-----|-----|-----------|------------|---|
| F-UL 6300AL | 63 | 180 | 97  | 95        | 1050       | 1 |
| F-UL 8000AL | 80 | 217 | 116 | 114       | 1800       | 1 |

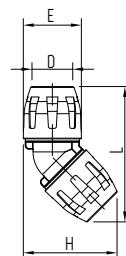


**union elbow 45°** > intermedio a gomito a 45° > *codo intermedio 45°*

**ULH**



| CODE       | D  | L   | H   | E  | inserting | weight (g) | □ |
|------------|----|-----|-----|----|-----------|------------|---|
| F-ULH 2000 | 20 | 104 | 72  | 45 | 48        | 100        | 8 |
| F-ULH 2500 | 25 | 115 | 81  | 51 | 52        | 145        | 8 |
| F-ULH 3200 | 32 | 137 | 97  | 61 | 62        | 235        | 5 |
| F-ULH 4000 | 40 | 160 | 115 | 75 | 70        | 375        | 3 |
| F-ULH 5000 | 50 | 185 | 134 | 87 | 79        | 540        | 3 |

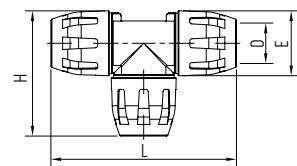


union tee > intermedio a T > te intermedia

**UT**



| CODE      | D  | L   | E  | inserting | weight (g) | □  |
|-----------|----|-----|----|-----------|------------|----|
| F-UT 1600 | 16 | 81  | 37 | 38        | 50         | 10 |
| F-UT 2000 | 20 | 98  | 45 | 48        | 90         | 10 |
| F-UT 2500 | 25 | 106 | 51 | 52        | 132        | 10 |
| F-UT 3200 | 32 | 124 | 61 | 62        | 212        | 6  |
| F-UT 4000 | 40 | 142 | 75 | 70        | 350        | 4  |
| F-UT 5000 | 50 | 161 | 87 | 79        | 505        | 3  |

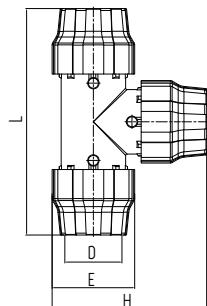


aluminum union tee > intermedio T in alluminio > te intermedia en aluminio

**UT-AL**



| CODE        | D  | L   | H   | E   | inserting | weight (g) | □ |
|-------------|----|-----|-----|-----|-----------|------------|---|
| F-UT 6300AL | 63 | 263 | 181 | 97  | 95        | 1280       | I |
| F-UT 8000AL | 80 | 318 | 217 | 116 | 114       | 2580       | I |

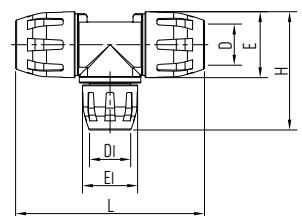


reduced union tee > intermedio T ridotto > te intermedia reducida

**GT**



| CODE      | D  | D1 | L   | E  | E1 | H   | inserting | inserting<br>I | weight<br>(g) | □ |
|-----------|----|----|-----|----|----|-----|-----------|----------------|---------------|---|
| F-GT 2016 | 20 | 16 | 127 | 45 | 37 | 80  | 48        | 38             | 150           | 6 |
| F-GT 2516 | 25 | 16 | 140 | 51 | 37 | 88  | 52        | 38             | 200           | 6 |
| F-GT 2520 | 25 | 20 | 140 | 51 | 45 | 98  | 52        | 48             | 210           | 5 |
| F-GT 3220 | 32 | 20 | 170 | 61 | 45 | 111 | 62        | 48             | 340           | 4 |
| F-GT 3225 | 32 | 25 | 170 | 61 | 51 | 113 | 62        | 52             | 340           | 3 |
| F-GT 4025 | 40 | 25 | 185 | 75 | 51 | 128 | 70        | 52             | 510           | 2 |
| F-GT 4032 | 40 | 32 | 185 | 75 | 61 | 131 | 70        | 62             | 540           | 2 |
| F-GT 5032 | 50 | 32 | 216 | 87 | 61 | 147 | 79        | 62             | 760           | 2 |
| F-GT 5040 | 50 | 40 | 216 | 87 | 75 | 150 | 79        | 70             | 820           | 2 |



# air&fluid distibution network <

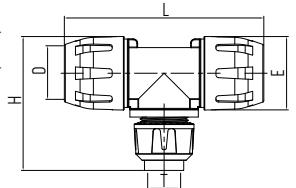
## fittings <

female tee > T femmina > te hembra

TF



| CODE      | D  | T      | L   | E  | H  | inserting | weight [g] | □ |
|-----------|----|--------|-----|----|----|-----------|------------|---|
| F-TF 2004 | 20 | G 1/2" | 127 | 45 | 75 | 48        | 160        | 4 |
| T-TF 2504 | 25 | G 1/2" | 140 | 51 | 80 | 52        | 210        | 4 |

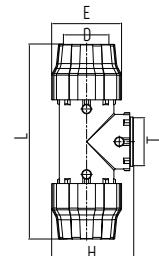


aluminum female tee > T femmina in alluminio > te hembra en aluminio

TF-AL



| CODE        | D  | T      | L   | H   | E   | inserting | weight [g] | □ |
|-------------|----|--------|-----|-----|-----|-----------|------------|---|
| F-TF 6309AL | 63 | 2"     | 263 | 112 | 97  | 95        | 1180       | I |
| F-TF 80IIAL | 80 | 2-1/2" | 318 | 136 | 116 | 114       | 1850       | I |

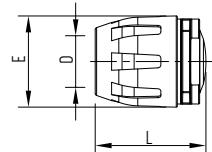


female plug > tappo femmina > tapón fin de línea

PF



| CODE      | D  | L  | E  | inserting | weight [g] | □  |
|-----------|----|----|----|-----------|------------|----|
| F-PF 1600 | 16 | 50 | 37 | 38        | 30         | 10 |
| F-PF 2000 | 20 | 54 | 45 | 48        | 58         | 10 |
| F-PF 2500 | 25 | 60 | 51 | 52        | 75         | 10 |
| F-PF 3200 | 32 | 71 | 61 | 62        | 126        | 6  |
| F-PF 4000 | 40 | 78 | 75 | 70        | 200        | 4  |
| F-PF 5000 | 50 | 85 | 87 | 79        | 298        | 3  |

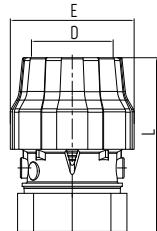


aluminum female plug > tappo femmina in alluminio > tapón fin de línea en aluminio

### PF-AL



| CODE        | D  | L   | E   | inserting | weight [g] | ✉ |
|-------------|----|-----|-----|-----------|------------|---|
| F-PF 6300AL | 63 | 139 | 97  | 95        | 1230       | I |
| F-PF 8000AL | 80 | 163 | 116 | 114       | 1560       | I |

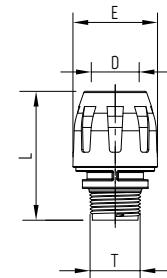


male BSPT thread connector > diritto maschio conico BSPT > directo macho BSPT

### CP



| CODE      | D  | T        | L   | E   | inserting | weight [g] | ✉  |
|-----------|----|----------|-----|-----|-----------|------------|----|
| F-CP 1604 | 16 | R 1/2"   | 64  | 37  | 38        | 30         | 25 |
| F-CP 2004 | 20 | R 1/2"   | 68  | 45  | 48        | 60         | 10 |
| F-CP 2005 | 20 | R 3/4"   | 68  | 45  | 48        | 60         | 10 |
| F-CP 2504 | 25 | R 1/2"   | 71  | 51  | 52        | 80         | 10 |
| F-CP 2505 | 25 | R 3/4"   | 73  | 51  | 52        | 80         | 10 |
| F-CP 2506 | 25 | R 1"     | 76  | 51  | 52        | 80         | 10 |
| F-CP 3206 | 32 | R 1"     | 85  | 61  | 62        | 120        | 10 |
| F-CP 3207 | 32 | R 1-1/4" | 87  | 61  | 62        | 130        | 10 |
| F-CP 4006 | 40 | R 1"     | 96  | 75  | 70        | 200        | 5  |
| F-CP 4007 | 40 | R 1-1/4" | 97  | 75  | 70        | 200        | 5  |
| F-CP 4008 | 40 | R 1-1/2" | 98  | 75  | 70        | 200        | 5  |
| F-CP 5008 | 50 | R 1-1/2" | 108 | 87  | 79        | 300        | 3  |
| F-CP 5009 | 50 | R 2"     | 111 | 87  | 79        | 290        | 3  |
| F-CP 6309 | 63 | R 2"     | 115 | 108 | 80,5      | 350        | I  |

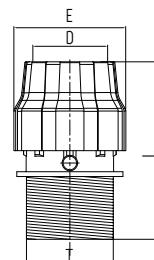


aluminum male BSPT thread connector > diritto maschio conico BSPT in alluminio > directo macho BSPT en aluminio

### CA-AL



| CODE        | D  | T        | L   | E   | inserting | weight [g] | ✉ |
|-------------|----|----------|-----|-----|-----------|------------|---|
| F-CA 2004AL | 20 | R 1/2"   | 53  | 38  | 37        | 43         | I |
| F-CA 2005AL | 20 | R 3/4"   | 53  | 38  | 37        | 45         | I |
| F-CA 2505AL | 25 | R 3/4"   | 58  | 45  | 45        | 63         | I |
| F-CA 2506AL | 25 | R 1"     | 58  | 45  | 45        | 68         | I |
| F-CA 3207AL | 32 | R 1-1/4" | 81  | 56  | 56        | 150        | I |
| F-CA 4008AL | 40 | R 1-1/2" | 94  | 62  | 77        | 322        | I |
| F-CA 5009AL | 50 | R 2"     | 106 | 81  | 75        | 457        | I |
| F-CA 6309AL | 63 | R 2"     | 130 | 97  | 95        | 518        | I |
| F-CA 6311AL | 63 | 2-1/2"   | 130 | 97  | 95        | 545        | I |
| F-CA 8011AL | 80 | 2-1/2"   | 152 | 116 | 114       | 907        | I |
| F-CA 8013AL | 80 | 3"       | 155 | 116 | 114       | 1027       | I |



air&fluid distibution network <

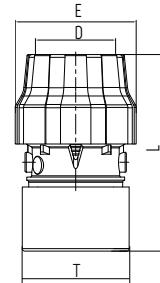
fittings <

aluminum female BSPP thread connector > diritto femmina cilindrica BSPP in alluminio > directo hembra BSPP en aluminio

CF-AL



| CODE        | D  | T        | L   | E  | inserting | weight [g] |   |
|-------------|----|----------|-----|----|-----------|------------|---|
| F-CF 2004AL | 20 | G 1/2"   | 55  | 38 | 37        | 44         | I |
| F-CF 2005AL | 20 | G 3/4"   | 55  | 38 | 37        | 45         | I |
| F-CF 2505AL | 25 | G 3/4"   | 60  | 45 | 45        | 68         | I |
| F-CF 2506AL | 25 | G 1"     | 60  | 45 | 45        | 70         | I |
| F-CF 3207AL | 32 | G 1-1/4" | 81  | 56 | 56        | 157        | I |
| F-CF 4008AL | 40 | G 1-1/2" | 94  | 62 | 77        | 335        | I |
| F-CF 5009AL | 50 | 2"       | 106 | 81 | 75        | 468        | I |
| F-CF 6311AL | 63 | G 2-1/2" | 134 | 97 | 95        | 582        | I |

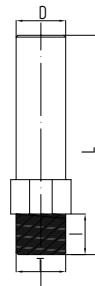


stem adapter BSPT thread in aluminum > adattatore a codolo conico BSPT in alluminio > adaptador de espiga rosca macho BSPT

ALSA



| CODE        | D  | T        | l  | inserting | weight [g] |    |
|-------------|----|----------|----|-----------|------------|----|
| F-ALSA 2004 | 20 | G 1/2"   | 13 | 48        | 110        | 20 |
| F-ALSA 2005 | 20 | G 3/4"   | 13 | 48        | 110        | 20 |
| F-ALSA 2506 | 25 | G 1"     | 16 | 52        | 150        | 15 |
| F-ALSA 3207 | 32 | G 1-1/4" | 18 | 62        | 230        | 5  |
| F-ALSA 4008 | 40 | G 1-1/2" | 21 | 70        | 460        | 4  |
| F-ALSA 5009 | 50 | G 2"     | 22 | 79        | 590        | 3  |

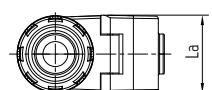
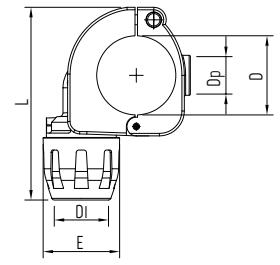


**quick branch > presa di derivazione rapida > brida de derivación**

**BR**



| CODE      | D  | D1 | L   | E  | La | Dp | weight (g) | □ |
|-----------|----|----|-----|----|----|----|------------|---|
| F-BR 2516 | 25 | 16 | 113 | 37 | 52 | 16 | 210        | 8 |
| F-BR 2520 | 25 | 20 | 113 | 45 | 52 | 16 | 230        | 8 |
| F-BR 3216 | 32 | 16 | 113 | 37 | 52 | 16 | 200        | 5 |
| F-BR 3220 | 32 | 2' | 113 | 45 | 52 | 16 | 220        | 5 |
| F-BR 4016 | 40 | 16 | 125 | 37 | 52 | 20 | 250        | 5 |
| F-BR 4020 | 40 | 20 | 125 | 45 | 52 | 20 | 270        | 5 |
| F-BR 4025 | 40 | 25 | 125 | 51 | 52 | 20 | 280        | 5 |
| F-BR 5016 | 50 | 16 | 145 | 37 | 60 | 20 | 420        | 3 |
| F-BR 5020 | 50 | 20 | 145 | 45 | 60 | 20 | 420        | 3 |
| F-BR 5025 | 50 | 25 | 145 | 51 | 60 | 20 | 430        | 3 |
| F-BR 6320 | 63 | 20 | 145 | 45 | 60 | 20 | 400        | 1 |
| F-BR 6325 | 63 | 25 | 145 | 51 | 60 | 20 | 410        | 1 |
| F-BR 6332 | 63 | 32 | 148 | 61 | 60 | 20 | 420        | 1 |

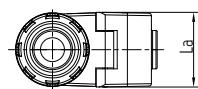
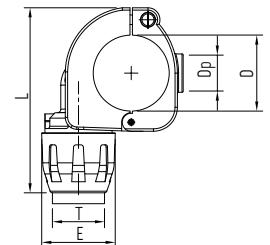


**quick branch female BSPP thread > presa di derivazione rapida femmina BSPP > brida de derivación hembra BSPP**

**BR**



| CODE      | D  | T      | L   | E  | La | Dp | weight (g) | □ |
|-----------|----|--------|-----|----|----|----|------------|---|
| F-BR 2504 | 25 | G 1/2" | 113 | 45 | 52 | 16 | 240        | 7 |
| F-BR 3204 | 32 | G 1/2" | 113 | 45 | 52 | 16 | 230        | 6 |
| F-BR 4004 | 40 | G 1/2" | 125 | 45 | 52 | 20 | 260        | 5 |
| F-BR 4005 | 40 | G 3/4" | 125 | 51 | 52 | 20 | 300        | 5 |
| F-BR 5004 | 50 | G 1/2" | 145 | 45 | 60 | 20 | 460        | 3 |
| F-BR 5005 | 50 | G 3/4" | 145 | 51 | 60 | 20 | 550        | 3 |

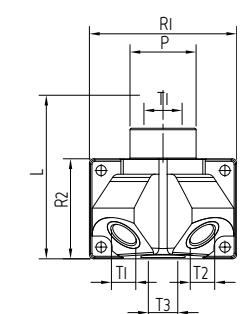


**applique for wall installation with fittings > presa a muro femmina con raccordo > aplique a pared con racores**

**WL**



| CODE    | D  | T1     | T2     | L1  | L2 | L3 | weight (g) | □ |
|---------|----|--------|--------|-----|----|----|------------|---|
| F-WL 16 | 16 | G 1/2" | G 1/4" | 100 | 68 | 99 | 270        | 2 |
| F-WL 20 | 20 | G 1/2" | G 1/4" | 110 | 68 | 99 | 320        | 2 |
| F-WL 25 | 25 | G 1/2" | G 1/4" | 110 | 68 | 99 | 330        | 2 |



# air&fluid distibution network <

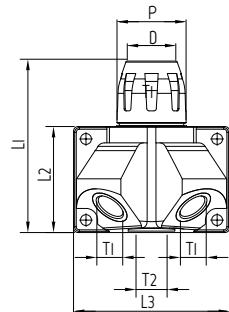
## fittings <

applique for wall installation > presa a muro femmina > applique a pared

WL



| CODE    | T1     | T2     | T3     | P  | R1 | R2 | L  | weight [g] |   |
|---------|--------|--------|--------|----|----|----|----|------------|---|
| F-WL 04 | G 1/2" | G 1/2" | G 1/4" | 36 | 83 | 51 | 95 | 280        | 4 |
| F-WL 05 | G 3/4" | G 1/2" | G 1/4" | 36 | 83 | 51 | 95 | 310        | 4 |

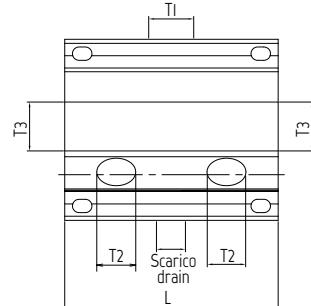


applique for wall installation > presa a muro femmina > applique a pared

WLM



| CODE      | T1     | T2         | T3         | L  | drain  | weight [g] |   |
|-----------|--------|------------|------------|----|--------|------------|---|
| F-UC I600 | G 1/2" | G 1/2" X 2 | G 1/2" X 2 | 88 | G 1/4" | 510        | I |

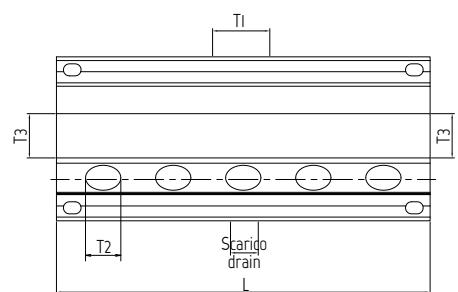


female multiple applique for wall installation > presa a muro multipla femmina > applique a pared múltiple hembra

WLM



| CODE      | T1     | T2         | T3         | L   | drain  | weight [g] |   |
|-----------|--------|------------|------------|-----|--------|------------|---|
| F-UC I600 | G 3/4" | G 3/4" X 5 | G 3/4" X 2 | 202 | G 1/4" | 1300       | I |



# > Valves



[technical specifications](#) > [specifiche tecniche](#) > [especificaciones técnicas](#)

---

[materials](#) > [materiali](#) > [materiales](#)

9210 - 9220 - 9250 :

- Body: nickel plated brass
- Seat: PTFE
- Ball: chrome plated brass
- O'ring: NBR

9210 - 9220 - 9250:

- Corpo: ottone nichelato
- Seggio: PTFE
- Sfera: ottone cromato
- O'ring: NBR

9210 - 9220 - 9250:

- Cuerpo: latón niquelado
- Asiento: PTFE
- Bolas: latón cromado
- O'ring: NBR

---

I610:

- Body: chrome plated brass
- Slide: blue anodized aluminum
- O'ring: NBR 70
- Elastic ring: steel

I610:

- Corpo: ottone cromato
- Corsoio: alluminio anodizzato blu
- O'ring: NBR 70
- Anello elastico: acciaio

I610:

- Cuerpo: Latón cromado
- Correda: Aluminio anodizado azul
- O'ring: NBR 70
- Anillo elástico: acero

---

[working pressure](#) > [pressione d'esercizio](#) > [presión de trabajo](#)

9210 - 9220 - 9250:

- 32 Bar from 1/4" to 1"
- 25 Bar from 1-1/4" to 2"

9210 - 9220 - 9250:

- 32 Bar da 1/4" a 1"
- 25 Bar da 1-1/4" a 2"

9210 - 9220 - 9250:

- 32 Bar de 1/4" a 1"
- 25 Bar de 1-1/4" a 2"

---

I610:

- 10 Bar

I610:

- 10 Bar

I610:

- 10 Bar



## technical specifications > specifiche tecniche > especificaciones técnicas

### working temperature > temperatura d'esercizio > temperatura de trabajo

9210 - 9220 - 9250:

- From -10°C to 110°C

9210 - 9220 - 9250:

- Da -10°C a 110°C

9210 - 9220 - 9250:

- De -10°C a 110°C

I610:

- From -5°C to 70°C

I610:

- Da -5°C a 70°C

I610:

- De -5°C a 70°C

### applications > applicazioni > aplicaciones

9210 - 9220 - 9250 :

- Suitable for hydraulics, sanitary, irrigation and compressed air industries
- Bidirectional

9210 - 9220 - 9250:

- Idoneo per impianti idraulici, aria compressa e impianti di irrigazione
- Bidirezionale

9210 - 9220 - 9250:

- Adecuado para conexiones hidráulicas, aire comprimido y riego
- Bidireccional

I610:

- Suitable for compressed air, lubricated compressed air, various gases not dangerous for people
- Direction of the flow indication engraved on the body

I610:

- Idoneo per aria compressa, aria compressa lubrificata gas vari non pericolosi alle persone
- indicazione incisa sul corpo della direzione del flusso

I610:

- Adecuado para aire comprimido, aire lubricado y gases inertes
- Indicación marcada sobre el cuerpo la dirección del fluido

full bore ball valve - blue lever > valvola a sfera a passaggio totale - leva blu > valvula de paso total - maneta azul

**9210**



| CODE         | D  | L   | inserting | weight [g] |   |
|--------------|----|-----|-----------|------------|---|
| F-9210TR2500 | 25 | 109 | 52        | 540        | I |
| F-9210TR3200 | 32 | 135 | 62        | 820        | I |
| F-9210TR4000 | 40 | 166 | 70        | 1190       | I |
| F-9210TR5000 | 50 | 192 | 79        | 1860       | I |

full bore universal ball valve - blue lever > valvola a sfera universale a passaggio totale - leva blu > válvula de paso total - maneta azul

**9220**



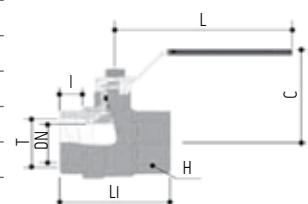
| CODE         | D  | T      | L   | inserting | weight [g] |   |
|--------------|----|--------|-----|-----------|------------|---|
| F-9220TR1604 | 16 | G 1/2" | 98  | 38        | 200        | I |
| F-9220TR2004 | 20 | G 1/2" | 100 | 48        | 320        | I |
| F-9220TR2505 | 25 | G 3/4" | 116 | 52        | 490        | I |

full bore ball valve, threaded ends BSPP F/F - blue lever > valvola a sfera a passaggio totale, attacchi filettati F/F BSPP - leva blu > valvula de paso total, rosca hembra BSPP maneta azul

**9210**



| CODE        | T        | DN | PN<br>(bar) | I    | L   | LI  | C  | H<br>(hex) | weight<br>[g] |   |
|-------------|----------|----|-------------|------|-----|-----|----|------------|---------------|---|
| F-9210TR14  | G 1/4"   | 10 | 32          | 9    | 83  | 41  | 35 | 17         | 115           | I |
| F-9210TR38  | G 3/8"   | 10 | 32          | 9    | 83  | 43  | 36 | 20         | 120           | I |
| F-9210TR12  | G 1/2"   | 15 | 32          | 11   | 90  | 48  | 42 | 25         | 175           | I |
| F-9210TR34  | G 3/4"   | 20 | 32          | 13   | 90  | 58  | 44 | 31         | 250           | I |
| F-9210TR1   | G 1"     | 25 | 32          | 15   | 105 | 69  | 57 | 38         | 460           | I |
| F-9210TRI14 | G 1-1/4" | 32 | 25          | 17   | 105 | 80  | 61 | 47         | 690           | I |
| F-9210TRI12 | G 1-1/2" | 40 | 25          | 18   | 150 | 91  | 72 | 54         | 990           | I |
| F-9210TR2   | G 2"     | 50 | 25          | 20,5 | 150 | 108 | 77 | 66         | 1570          | I |

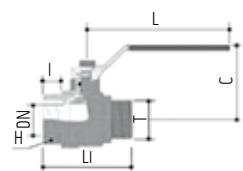


**full bore universal ball valve, threaded ends BSPP M/F - blue lever** > valvola a sfera universale a passaggio totale, attacchi filettati BSPP M/F - leva blu > válvula de paso total rosca macho/hembra BSPP maneta azul

**9220**



| CODE        | T        | DN | PN<br>(bar) | I    | L   | LI  | C  | H<br>(hex) | weight<br>(g) | □ |
|-------------|----------|----|-------------|------|-----|-----|----|------------|---------------|---|
| F-9220TRI4  | G 1/4"   | 10 | 32          | 9    | 83  | 48  | 35 | 17         | 115           | I |
| F-9220TR38  | G 3/8"   | 10 | 32          | 9    | 83  | 48  | 36 | 20         | 120           | I |
| F-9220TR12  | G 1/2"   | 15 | 32          | 11   | 90  | 48  | 42 | 25         | 170           | I |
| F-9220TR34  | G 3/4"   | 20 | 32          | 13   | 90  | 58  | 44 | 31         | 260           | I |
| F-9220TR1   | G 1"     | 25 | 32          | 15   | 105 | 69  | 57 | 38         | 410           | I |
| F-9220TRI14 | G 1-1/4" | 32 | 25          | 17   | 105 | 80  | 61 | 47         | 620           | I |
| F-9220TRI12 | G 1-1/2" | 40 | 25          | 18   | 150 | 91  | 72 | 54         | 930           | I |
| F-9220TR2   | G 2"     | 50 | 25          | 20,5 | 150 | 108 | 77 | 66         | 1430          | I |

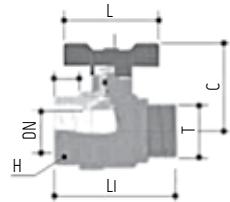


**full bore ball valve, threaded ends BSPP M/F - blue butterfly lever** > valvola a sfera a passaggio totale, attacchi filettati BSPP M/F - leva blu a farfalla > válvula de paso total rosca macho/hembra BSPP maneta tipo mariposa azul

**9250**



| CODE       | T      | DN | PN<br>(bar) | I  | L  | LI | C  | H<br>(hex) | weight<br>(g) | □ |
|------------|--------|----|-------------|----|----|----|----|------------|---------------|---|
| F-9250TRI2 | G 1/2" | 15 | 32          | 11 | 52 | 48 | 42 | 25         | 170           | I |
| F-9250TR34 | G 3/4" | 20 | 32          | 13 | 52 | 58 | 44 | 31         | 235           | I |

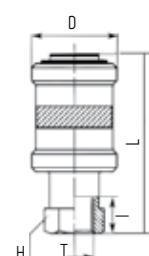


**slide valve BSPP thread** > valvola a corsoio filetto cilindrico BSPP > válvula de corredera BSPP

**1610**



| CODE       | T      | D  | I    | L  | H<br>(hex) | FLOW<br>(l/min) | weight (g) | □ |
|------------|--------|----|------|----|------------|-----------------|------------|---|
| F-1610TRI2 | G 1/2" | 40 | 15   | 75 | 27         | 3800            | 212        | 5 |
| F-1610TR34 | G 3/4" | 50 | 16,5 | 83 | 32         | 5700            | 317        | 5 |



# > Accessories



technical specifications > specifiche tecniche > especificaciones técnicas

materials > materiali > materiales

UCES :

- Polyurethane
- Color: light blue
- Suitable for pneumatics
- Thread: cylindrical Gas BSPP

UCES:

- Poliuretano
- Colore: Azzurro
- Ideale per applicazioni pneumatiche
- Filetto: cilindrico Gas BSPP

UCES:

- Poliuretano
- Color: Azul
- Adecuado para neumática
- Rosca: Gas cilíndrica BSPP

CAU:

- Synthetic caucho and textile reinforcement
- Color: light blue
- Suitable for automation, robotics plants and in industrial applications in general

CAU:

- Caucho sintetico con rinforzo tessile
- Colore: azzurro
- Ideale per impianti di automazione e robotica e applicazioni in generale

CAU:

- Caucho sintético y refuerzo textil
- Color: azul
- Adecuado para automoción, robótica aplicaciones generales en industria

CB:

- Body: plastic and steel
- Color: blue
- Suitable for pneumatic
- Thread: cylindrical gas BSPP
- Flow: 585 l/min at 8 Bar

CB:

- Corpo: plastica e acciaio
- Colore: blu
- Ideale per applicazioni pneumatiche
- Filetto: cilindrico Gas BSPP
- Portata: 585 l/min a 8 Bar

CB:

- Cuerpo: plástico y acero
- Color: blu
- Adecuado para neumática
- Rosca: Gas cilíndrica BSPP
- Caudal: 585 l/min a 8 Bar

PU-PVC:

- Polyurethane and PVC
- Color: blue
- Suitable for compressed air tools in general, guns for paint and airbrush

PU-PVC:

- Poliuretano e PVC
- Colore: blu
- Ideale per aria compressa per utensileria in genere, pistole per verniciatura e aerografi

PU-PVC:

- Poliuretano y PVC
- Color: blu
- Adecuado para herramientas neumáticas en general, pistolas de pintura

PVC-AC:

- PVC with reinforcement of polyester fiber coated with plastic
- Color: black
- Suitable for compressed air and water. Excellent resistance to low temperature.

PVC-AC:

- PVC con rinforzo in fibra di poliestere ricoperta di plastica
- Colore: nero
- Ideale per aria compressa e acqua Ottima resistenza alle basse temperature

PU-PVC:

- PVC con fibra de poliéster reforzado cubierto con plástico
- Color: negro
- Adecuado para herramientas neumáticas en general, pistolas de pintura



## technical specifications > specifiche tecniche > especificaciones técnicas

### working pressure > pressione d'esercizio > presión de trabajo

|   |   |   |
|---|---|---|
| UCES<br>◦ 8 Bar at 23°C                       | UCES<br>◦ 8 Bar a 23°C                              | UCES<br>◦ 8 Bar a 23°C                              |
| CAU<br>◦ 20 Bar<br>◦ 60 Bar burst pressure    | CAU<br>◦ 20 Bar<br>◦ 60 Bar pressione di scoppio    | CAU<br>◦ 20 Bar<br>◦ 60 Bar presión de estallido    |
| CB<br>◦ 10 Bar                                | CB<br>◦ 10 Bar                                      | CB<br>◦ 10 Bar                                      |
| PU-PVC<br>◦ 20 Bar<br>◦ 60 Bar burst pressure | PU-PVC<br>◦ 20 Bar<br>◦ 60 Bar pressione di scoppio | PU-PVC<br>◦ 20 Bar<br>◦ 60 Bar presión de estallido |
| PVC-AC<br>◦ 20 Bar<br>◦ 60 Bar burst pressure | PVC-AC<br>◦ 20 Bar<br>◦ 60 Bar pressione di scoppio | PVC-AC<br>◦ 20 Bar<br>◦ 60 Bar presión de estallido |

### working temperature > temperatura d'esercizio > temperatura de trabajo

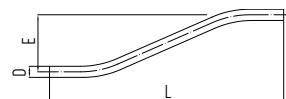
|                                |                             |                             |
|--------------------------------|-----------------------------|-----------------------------|
| UCES<br>◦ from 0°C to 60°C     | UCES<br>◦ da 0°C a 60°C     | UCES<br>◦ de 0°C a 60°C     |
| CAU<br>◦ from -50°C to 120°C   | CAU<br>◦ da -50°C a 120°C   | CAU<br>◦ de -50°C a 120°C   |
| CB<br>◦ from 0°C to 60°C       | CB<br>◦ da 0°C a 60°C       | CB<br>◦ de 0°C a 60°C       |
| PU-PVC<br>◦ from -20°C to 60°C | PU-PVC<br>◦ da -20°C a 60°C | PU-PVC<br>◦ de -20°C a 60°C |
| PVC-AC<br>◦ from -20°C to 60°C | PVC-AC<br>◦ da -20°C a 60°C | PVC-AC<br>◦ de -20°C a 60°C |

double bend > doppia curva > doble curva

**IS**



| CODE      | D  | L  | E  | weight (g) | □ |
|-----------|----|----|----|------------|---|
| F-IS 1600 | 16 | 34 | 17 | 70         | I |
| F-IS 2000 | 20 | 43 | 13 | 100        | I |
| F-IS 2500 | 25 | 46 | 16 | 130        | I |

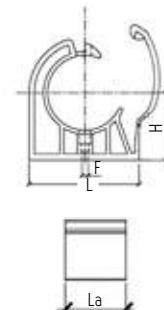


fasteners in polypropylene with threaded inserts M8 > fermatubo in polipropilene con inserti filettati M8 > fijaciones con insertos roscados M8 en polipropileno

**STFTM8**



| CODE       | D  | L  | H  | F | La | weight (g) | □  |
|------------|----|----|----|---|----|------------|----|
| F-STFT16M8 | 16 | 31 | 35 | 9 | 30 | 9          | I0 |
| F-STFT20M8 | 20 | 31 | 35 | 9 | 30 | 20         | I0 |
| F-STFT25M8 | 25 | 38 | 35 | 9 | 30 | 30         | I0 |
| F-STFT32M8 | 32 | 49 | 35 | 9 | 30 | 70         | I0 |
| F-STFT40M8 | 40 | 60 | 70 | 9 | 40 | 80         | I0 |
| F-STFT50M8 | 50 | 75 | 70 | 9 | 40 | 85         | I0 |
| F-STFT63M8 | 63 | 94 | 70 | 9 | 40 | 110        | I0 |

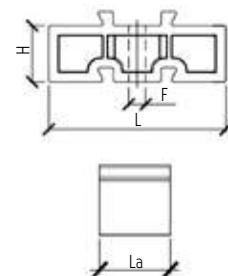


polypropylene spacer > distanziale in polipropilene > espaciador en polipropileno

**STFD**



| CODE        | D        | L  | H  | E | La | weight (g) | □  |
|-------------|----------|----|----|---|----|------------|----|
| F-STFD 2032 | 20-25-32 | 49 | 35 | 9 | 30 | 19         | I0 |
| F-STFD 4063 | 40-50-63 | 94 | 30 | 9 | 40 | 55         | I0 |



tool for drilling pipe > utensile per foratura tubo > herramientas para la perforación de la tubería

**UTS**



| CODE       | D tube | weight (g) | □ |
|------------|--------|------------|---|
| F-UTS 2532 | 25-32  | 65         | I |
| F-UTS 4050 | 40-50  | 77         | I |

**seal** > or di tenuta > juntas

**OR**



| CODE      | D  | weight (g) | □  |
|-----------|----|------------|----|
| F-OR 1600 | 16 | 50         | 10 |
| F-OR 2000 | 20 | 90         | 10 |
| F-OR 2500 | 25 | 132        | 10 |
| F-OR 3200 | 32 | 212        | 10 |
| F-OR 4000 | 40 | 350        | 10 |
| F-OR 5000 | 50 | 505        | 10 |
| F-OR 6300 | 63 | 610        | 10 |

**lock claw** > pinza di serraggio > pinza agarre

**PZS**



| CODE       | D  | weight (g) | □  |
|------------|----|------------|----|
| F-PZS 1600 | 16 | 8          | 10 |
| F-PZS 2000 | 20 | 8          | 10 |
| F-PZS 2500 | 25 | 8          | 10 |
| F-PZS 3200 | 32 | 10         | 10 |
| F-PZS 4000 | 40 | 10         | 10 |
| F-PZS 5000 | 50 | 12         | 10 |
| F-PZS 6300 | 63 | 14         | 10 |

**automatic hose reels** > avvolgitubo automatico > enrrolladora automática

**AV**



| CODE        | dimension [mm] | thread | D tube | tube lenght [mt.] | PN [bar] | □ |
|-------------|----------------|--------|--------|-------------------|----------|---|
| F-AV0812G14 | 345X288X160    | R 1/4" | 8X12   | 12                | 20       | I |
| F-AV0812G14 | 392X324X160    | R 1/4" | 8X12   | 15                | 20       | I |
| F-AV1014G38 | 345X288X160    | R 3/8" | 10X14  | 10                | 20       | I |
| F-AV1014G38 | 392X324X160    | R 3/8" | 10X14  | 12                | 20       | I |

**PU coiled tube on polyester basis with fittings** > spirale in poliuretano a base poliestere completa di raccordi girevoli > espiral de poliuretano con racores en los extremos giratorio

**UCES**



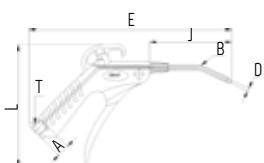
| CODE                  | sizes       | O.O. | I.D.   | thread | length tube [mt.] | □ |
|-----------------------|-------------|------|--------|--------|-------------------|---|
| F-UCES 060405-25G14   | 6X4X5 mt.   | 6    | 4      | G 1/4" | 5                 | I |
| F-UCES 080505-25G14   | 8X5X5 mt.   | 8    | 5      | G 1/4" | 5                 | I |
| F-UCES 080575-25G14   | 8X5X7,5 mt. | 8    | 5      | G 1/4" | 7,5               | I |
| F-UCES 10X6,5X7,5 mt. | 10          | 6,5  | G 1/4" | 7,5    | I                 |   |
| F-UCES 10X6,5X10 mt.  | 10          | 6,5  | G 1/4" | 10     | I                 |   |
| F-UCES 12X8X7,5 mt.   | 12          | 8    | G 3/8" | 7,5    | I                 |   |
| F-UCES 12X8X10 mt.    | 12          | 8    | G 3/8" | 10     | I                 |   |

**bigger flowrate air gun with steel nozzle & plastic BSPP thread** > pistola di soffiaggio ad alta portata con ugello in acciaio & filetto femmina BSPP cilindrico in plastica > pistola de suplado de gran caudal con alargadera en acero, rosca hembra BSPP cilíndrica en plástico

## CBOI



| CODE         | D   | T      | L     | E     | A    | J   | B        | weight [g] | □ |
|--------------|-----|--------|-------|-------|------|-----|----------|------------|---|
| F-CBOIF010FG | 3,5 | G 1/4" | 143,6 | 242,7 | 13,5 | 100 | bent     | 118        | I |
| F-CBOIF020FG | 3,5 | G 1/4" | 143,6 | 342,7 | 13,5 | 200 | straight | 132        | I |
| F-CBOIF030FG | 3,5 | G 1/4" | 143,6 | 442,7 | 13,5 | 300 | straight | 147        | I |



**caucho light blue tube** > tubo in caucho azzurro > tubo de caucho azul

## CAU



| CODE       | I.D. | O.D. | bending radius | weight (g) | □      |
|------------|------|------|----------------|------------|--------|
| F-CAU 0613 | 6    | 13   | 35             | 200        | 50 mt. |
| F-CAU 0815 | 8    | 15   | 45             | 250        | 50 mt. |
| F-CAU 1018 | 10   | 18   | 70             | 300        | 50 mt. |
| F-CAU 1220 | 12   | 20   | 80             | 400        | 50 mt. |
| F-CAU 1525 | 15   | 25   | 100            | 550        | 50 mt. |
| F-CAU 1930 | 19   | 30   | 150            | 700        | 50 mt. |

**PU-PVC compressed air tube** > tubo per aria compressa in PU-PVC > tubo PU-PVC para aire comprimido

## PU-PVC



| CODE          | I.D. | O.D. | weight (g) | □       |
|---------------|------|------|------------|---------|
| F-PU-PVC 0610 | 6    | 10   | 75         | 100 mt. |
| F-PU-PVC 0812 | 8    | 12   | 110        | 100 mt. |
| F-PU-PVC 1015 | 10   | 15   | 125        | 100 mt. |
| F-PU-PVC 1116 | 11   | 16   | 175        | 100 mt. |
| F-PU-PVC 1319 | 13   | 19   | 200        | 100 mt. |

**PVC tube with reinforcement in polyester fiber** > tubo in PVC con rinforzo in fibra di poliestere > tubo PVC-AC reforzado con fibra de poliéster

## PVC-AC



| CODE            | I.D. | O.D. | weight (g) | □       |
|-----------------|------|------|------------|---------|
| F-PVC-AC 0614NE | 6    | 14   | 170        | 100 mt. |
| F-PVC-AC 0817NE | 8    | 17   | 240        | 100 mt. |
| F-PVC-AC 1019NE | 10   | 19   | 210        | 50 mt.  |
| F-PVC-AC 1323NE | 13   | 23   | 390        | 50 mt.  |
| F-PVC-AC 1929NE | 19   | 29   | 550        | 50 mt.  |

**male barb connector BSPP thread** > diritto maschio cilindrico BSPP con portagomma > racor directo macho cilíndrico BSPP con manguera

**I163**



| CODE           | Ø tube | thread | weight (g) | □  |
|----------------|--------|--------|------------|----|
| F-I163TR6I0I4  | 6X10   | G 1/4" | 34         | I0 |
| F-I163TR6I4I4  | 6X14   | G 1/4" | 38         | I0 |
| F-I163TR8I2I4  | 8X12   | G 1/4" | 42         | I0 |
| F-I163TR8I538  | 8X15   | G 3/8" | 44         | I0 |
| F-I163TR8I738  | 8X17   | G 3/8" | 48         | I0 |
| F-I163TR10I538 | 10X15  | G 3/8" | 45         | I0 |
| F-I163TR10I938 | 10X19  | G 3/8" | 62         | I0 |
| F-I163TRII638  | 11X16  | G 3/8" | 49         | I0 |

**large male barb connector BSPP thread** > diritto maschio gigante cilindrico BSPP portagomma > racor con manguera para tubería rosca macho BSPP

**I292**



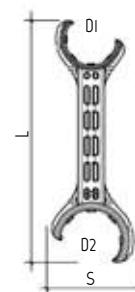
| CODE           | Ø tube | thread | weight (g) | □  |
|----------------|--------|--------|------------|----|
| F-I292TR13I9I2 | 13X19  | G 1/2" | 107        | I0 |
| F-I292TR1320I2 | 13X20  | G 1/2" | 120        | I0 |
| F-I292TR1323I2 | 13X23  | G 1/2" | 135        | I0 |

**wrench for tightening fittings** > chiave per serraggio raccordi > clave para apretar racores

**CH**



| CODE      | Ø D1 | Ø D2 | S     | L     | weight (g) | □ |
|-----------|------|------|-------|-------|------------|---|
| F-CH 2025 | 20   | 25   | 60,35 | 212,5 | 90         | I |
| F-CH 3240 | 32   | 40   | 102   | 273   | 100        | I |
| F-CH 50   | 50   | -    | 112   | 333   | 175        | I |
| F-CH 63   | 63   | -    | 120   | 326   | 200        | I |
| F-CH 80   | 80   | -    | 148   | 365   | 235        | I |



**metal hose cutter** > pinza tagliatubo > cortatubo metálico

**PZ-PA**



| CODE         | Ø min. | Ø max. | weight (g) | □ |
|--------------|--------|--------|------------|---|
| F-PZ-PA 1540 | 15     | 40     | 350        | I |
| F-PZ-PA 1563 | 15     | 63     | 800        | I |

socket depth meter > calettatometro > medidor de profundidad

## CALT



| CODE        | Ø min. | Ø max | weight [g] |   |
|-------------|--------|-------|------------|---|
| F-CALT I680 | 16     | 80    | 70         | I |

bevelling cone > cono smussatore > cono de biselado

## USB



| CODE     | Ø min. | Ø max | weight [g] |   |
|----------|--------|-------|------------|---|
| F-USB 50 | 16     | 50    | 44         | I |
| F-USB 80 | 63     | 80    | 1753       | I |

teflon tape for professional use > nastro teflon per utilizzo professionale > cinta de PTFE para uso profesional

## R-PTFE



| CODE                 | description  | weight [g] |    |
|----------------------|--|------------|----|
| F-R-PTFE I90215-PROF | <p>PTFE tape 3/4" - length 15 mt. - thickness 0,2 mm. For professional use according to directive DIN - DVGW, BS 7786 and CASTEC norms. To be used in a temperature range from -200°C to +260°C</p> <p>Nastro PTFE da 3/4" - lunghezza 15 mt. - spessore 0,2 mm. Per utilizzo professionale secondo normativa DIN-DVGW, BS 7786 e CASTEC. Da utilizzare in un campo di temperatura da -200°C a +260°C</p> <p>Cinta de PTFE de 3/4" - longitud 15 mt. - espesor 0,2 mm. Para uso profesional según normativa DIN-DVGW, BS 7786 y CASTEC. Para uso en un rango de temperatura de -200°C a +260°C</p> | 30         | I0 |

**low strength PTFE anaerobic adhesive for sealing of metal thread pipe joints** > sigillante anaerobico al PTFE per raccordi e tubazioni a bassa resistenza meccanica > sellador anaeróbico con PTFE para tubos y accesorios a baja resistencia mecánica

## LOX1810



| CODE      | container  | weight [g] |   |
|-----------|--|------------|---|
| F-LOX1810 | soft bottle 75 ml<br>flacone soft da 75 ml<br>bodella blanda 75 ml | 110        | 1 |

**liquid adhesive** > guarnizione liquida > líquido junta

## LOC5331



| CODE      | container  | weight [g] |     |
|-----------|--|------------|-----|
| F-LOC5331 | Liquid adhesive for threaded fittings & plastic tubes. To be used with potable water up to 85°C<br><br>Guarnizione liquida per raccordi filettati e tubazioni in plastica. Utilizzo con acqua potabile fino a 85°C<br><br>Líquido junta para los roscados y las tuberías de plástico. Se utiliza con agua potable a 85°C | 100 g      | 146 |

# > Quick Couplings

## Tierre Universal



[technical specifications](#) > [specifiche tecniche](#) > [especificaciones técnicas](#)

---

[materials](#) > [materiali](#) > [materiales](#)

**Quick Couplings:**

- brass with 6 inox spheres

**Giunti:**

- ottone con 6 sfere in inox

**Enchufe:**

- latón con 6 bolas de acero AISI 316

**Connections:**

- brass

**Innesti:**

- ottone

**Acoplamiento:**

- latón

---

[working pressure](#) > [pressione d'esercizio](#) > [presión de trabajo](#)

- 13 Bar

- 13 Bar

- 13 Bar

---

[working temperature](#) > [temperatura d'esercizio](#) > [temperatura de trabajo](#)

- From -15°C to 80°C

- Da -50°C a 80°C

- De -15°C a 80°C

---

[thread](#) > [filettature](#) > [rosca](#)

- parallel BSPP from GI/4" to GI/2"

- cilindrica BSPP da GI/4" a GI/2"

- cilíndricas BSPP de GI/4" a GI/2"

---

[applications](#) > [applicazioni](#) > [aplicaciones](#)

- Pneumatics, not aggressive and not oxidant fluids. Indicated especially for applications with pneumatic tools, compressed air equipments and industrial machineries.

- Pneumatica in generale, fluidi non aggressivi e non ossidanti. Indicati soprattutto per applicazioni con strumenti pneumatici, impianti ad aria compressa e macchinari industriali.

- Neumática y fluidos no agresivos ni oxidantes. Especialmente indicados para aplicaciones con herramienta neumática, compresores y maquinaria industrial.



[technical specifications](#) > specifiche tecniche > *especificaciones técnicas*

---

[compatibility](#) > compatibilità > *compatibilidad*

◦ quick coupling compatible with:

Italy series  
Germany series  
America series  
Swiss series

◦ giunti compatibili con:

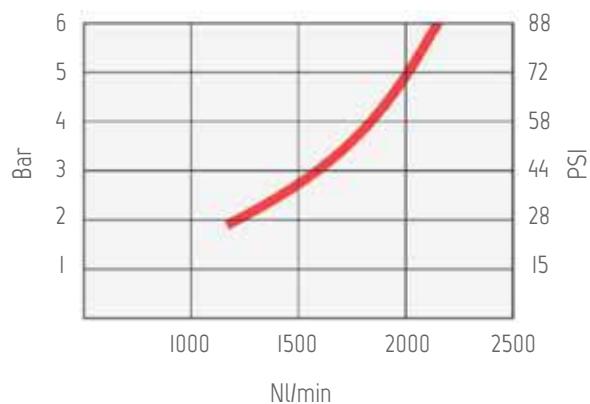
serie Italia  
serie Germania  
serie America  
serie Svizzera

◦ enchufe compatible con:

serie Italia  
serie Alemania  
serie America  
serie Suiza

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[drop flow general](#) > perdite di carico generali > *pérdidas de carga general*

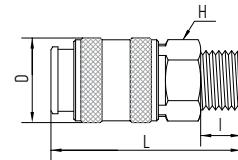


male quick coupler > giunto maschio > enchufe rápido macho

**8410FM**



| CODE     | T     | I    | D  | L    | H  | □  |
|----------|-------|------|----|------|----|----|
| 8410FM02 | G1/4" | II   | 24 | 58   | 20 | 10 |
| 8410FM03 | G3/8" | II,5 | 24 | 54   | 20 | 10 |
| 8410FM04 | G1/2" | I4   | 24 | 56,5 | 22 | 10 |

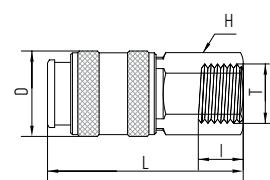


female quick coupler > giunto femmina > enchufe rápido hembra

**8420FF**



| CODE     | T     | I  | D  | L  | H  | □  |
|----------|-------|----|----|----|----|----|
| 8420FF02 | G1/4" | II | 24 | 55 | 20 | 10 |
| 8420FF03 | G3/8" | I2 | 24 | 55 | 20 | 10 |
| 8420FF04 | G1/2" | I4 | 28 | 55 | 25 | 10 |

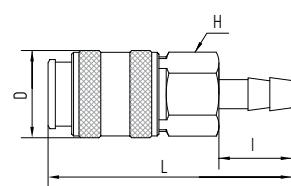


barb connector quick coupler > giunto a resca > enchufe con manguera

**8430RE**



| CODE     | Ø  | I  | D  | L  | H  | □  |
|----------|----|----|----|----|----|----|
| 8430RE06 | 6  | 20 | 24 | 67 | 20 | 10 |
| 8430RE08 | 8  | 20 | 24 | 67 | 20 | 10 |
| 8430RE10 | 10 | 20 | 24 | 67 | 20 | 10 |
| 8430RE12 | 12 | 24 | 24 | 71 | 20 | 10 |

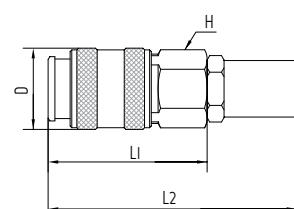


hose connector quick coupler > giunto portagomma > enchufe con manguera

**8440PO**



| CODE        | Ø         | D  | L1 | L2   | H  | □  |
|-------------|-----------|----|----|------|----|----|
| 8440PO610   | 6 X 10    | 24 | 47 | 73   | 20 | 10 |
| 8440PO614   | 6 X 14    | 24 | 47 | 73   | 20 | 10 |
| 8440PO812   | 8 X 12    | 24 | 47 | 73,5 | 20 | 10 |
| 8440PO817   | 8 X 17    | 24 | 47 | 73,5 | 20 | 10 |
| 8440PO10145 | 10 X 14,5 | 24 | 47 | 73,5 | 20 | 10 |
| 8440PO1019  | 10 X 19   | 24 | 47 | 77   | 20 | 10 |



air&fluid distibution network <

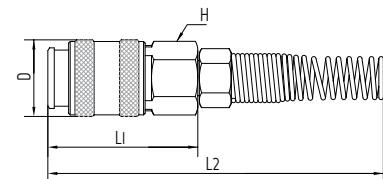
quick couplings <

quick coupler with spring > giunto con molla > enchufe con espiga

**8450MO**



| CODE       | $\emptyset$ | D  | L1   | L2  | H  |    |
|------------|-------------|----|------|-----|----|----|
| 8450MO58   | 5 X 8       | 24 | 47   | 148 | 20 | 10 |
| 8450MO68   | 6 X 8       | 24 | 47   | 148 | 20 | 10 |
| 8450MO810  | 8 X 10      | 24 | 47   | 148 | 20 | 10 |
| 8450MO6510 | 6,5 X 10    | 24 | 47   | 148 | 20 | 10 |
| 8450MO812  | 8 X 12      | 24 | 42,5 | 160 | 20 | 10 |
| 8450MO1012 | 10 X 12     | 24 | 42,5 | 160 | 20 | 10 |



male connection > innesto maschio > acoplamiento macho

**8260MM**



| CODE     | T     | L    | H  |    |
|----------|-------|------|----|----|
| 8260MM01 | R1/8" | 34,7 | 13 | 10 |
| 8260MM02 | R1/4" | 37,9 | 14 | 10 |
| 8260MM03 | R3/8" | 38,2 | 17 | 10 |
| 8260MM04 | R1/2" | 42,1 | 22 | 10 |

female connection > innesto femmina > acoplamiento hembra

**8270FM**



| CODE     | T     | L    | H  |    |
|----------|-------|------|----|----|
| 8270FM01 | G1/8" | 29   | 13 | 10 |
| 8270FM02 | G1/4" | 37   | 15 | 10 |
| 8270FM03 | G3/8" | 38,1 | 19 | 10 |
| 8270FM04 | G1/2" | 42   | 25 | 10 |

connection with hose connector > innesto portagomma > acoplamiento con manguera

**8230PO**



| CODE       | $\emptyset$ | L    | H1 | H2 |    |
|------------|-------------|------|----|----|----|
| 8230PO610  | 6 X 10      | 55,5 | 13 | 15 | 10 |
| 8230PO613  | 6 X 13      | 54,8 | 13 | 16 | 10 |
| 8230PO614  | 6 X 14      | 55,7 | 12 | 17 | 10 |
| 8230PO812  | 8 X 12      | 55   | 13 | 15 | 10 |
| 8230PO815  | 8 X 15      | 55   | 13 | 18 | 10 |
| 8230PO817  | 8 X 17      | 55,4 | 13 | 20 | 10 |
| 8230PO1019 | 10 X 19     | 59,8 | 13 | 22 | 10 |

**bayonet male connection > innesto maschio a baionetta > acoplamiento macho con la bayoneta**



## 8285BM



| CODE     | Ø   | L     | P  | □  |
|----------|-----|-------|----|----|
| 8285BM55 | 5,5 | 155,8 | 15 | 10 |

**connection with spring > innesto con molla > acoplamiento con muelle**



## 8295MO



| CODE       | Ø        | L     | H1 | H2 | □  |
|------------|----------|-------|----|----|----|
| 8295M046   | 4 X 6    | 112,1 | 12 | 12 | 10 |
| 8295M058   | 5 X 8    | 125,5 | 13 | 13 | 10 |
| 8295M068   | 6 X 8    | 124,9 | 13 | 13 | 10 |
| 8295M06510 | 6,5 X 10 | 126   | 13 | 15 | 10 |
| 8295M0810  | 8 X 10   | 123,7 | 13 | 15 | 10 |
| 8295M0812  | 8 X 12   | 125,5 | 15 | 17 | 10 |
| 8295M01012 | 10 X 12  | 127,5 | 15 | 17 | 10 |

**male quick coupler > giunto maschio > enchufe rápido macho**



## 8360MM



| CODE     | T     | L    | H  | □  |
|----------|-------|------|----|----|
| 8360MM02 | R1/4" | 33,5 | 14 | 10 |
| 8360MM03 | R3/8" | 35,5 | 17 | 10 |
| 8360MM04 | R1/2" | 38,4 | 22 | 10 |

**female quick coupler > giunto femmina > enchufe rápido hembra**



## 8370FM



| CODE     | T     | L    | H  | □  |
|----------|-------|------|----|----|
| 8370FM02 | G1/4" | 33,1 | 15 | 10 |
| 8370FM03 | G3/8" | 35   | 19 | 10 |
| 8370FM04 | G1/2" | 38   | 25 | 10 |

air&fluid distibution network <

quick couplings <

---

connection with hose connector > innesto portagomma > acoplamiento con manguera



8340PO



| CODE       | Ø       | L    | H1 | H2 | □  |
|------------|---------|------|----|----|----|
| 8340PO610  | 6 X 10  | 51,4 | 13 | 15 | 10 |
| 8340PO612  | 6 X 12  | 51,4 | 13 | 15 | 10 |
| 8340PO614  | 6 X 14  | 51,4 | 13 | 17 | 10 |
| 8340PO817  | 8 X 17  | 52,5 | 13 | 18 | 10 |
| 8340PO1019 | 10 X 19 | 55,4 | 12 | 22 | 10 |

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connection with barb connector > innesto a resca > acoplamiento de lengüeta



8380RE



| CODE     | Ø  | P    | □  |
|----------|----|------|----|
| 8380RE06 | 6  | 38,2 | 10 |
| 8380RE07 | 7  | 40   | 10 |
| 8380RE08 | 8  | 40,2 | 10 |
| 8380RE09 | 9  | 40,9 | 10 |
| 8380RE10 | 10 | 39,4 | 10 |
| 8380RE12 | 12 | 44,6 | 10 |
| 8380RE13 | 13 | 45,6 | 10 |

---

connection with spring > innesto con molla > acoplamiento con espiga



8395MO



| CODE       | Ø        | L     | H1 | H2 | □  |
|------------|----------|-------|----|----|----|
| 8395M046   | 4 X 6    | 103,2 | 13 | 12 | 10 |
| 8395M058   | 5 X 8    | 119,5 | 13 | 13 | 10 |
| 8395M068   | 6 X 8    | 124,3 | 13 | 13 | 10 |
| 8395M06510 | 6,5 X 10 | 120,5 | 13 | 15 | 10 |
| 8395M0810  | 8 X 10   | 123,2 | 13 | 15 | 10 |
| 8395M01012 | 10 X 12  | 123,2 | 15 | 17 | 10 |

# > Quick Couplings



Fluid-10N ISO 6150-B-12 & Fluid-10S ISO 6150-B-12 **safety**

[technical specifications](#) > [specifiche tecniche](#) > [especificaciones técnicas](#)

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[materials](#) > [materiali](#) > [materiales](#)

**Body and Slide:**

- nickel-plated steel
- nickel-plated brass for body FLUID-10S

**Corpo e Corsoio:**

- acciaio nichelato
- ottone nichelato per il corpo FLUID-10S

**Cuerpo y Manguito:**

- acero niquelato
- latón niquelado para el cuerpo FLUID-10S

---

**Adapter and Valve:**

- nickel-plated brass

**Adattatore e Valvola:**

- ottone nichelato

**Adaptador y Válvula:**

- latón niquelado

---

**O'ring:**

- NBR

**O'ring:**

- NBR

**Juntas:**

- NBR

---

**Balls:**

- chrome steel

**Sfere:**

- acciaio cromato

**Bolas:**

- acero cromado

---

**Spring:**

- stainless steel AISI 302

**Molla:**

- Acciaio inox AISI 302

**Muelles:**

- acero inox AISI 302

---

**Connections:**

- nickel-plated steel

**Innesto:**

- acciaio nichelato

**Acoplamiento:**

- acero niquelato

[working pressure](#) > [pressione d'esercizio](#) > [presión de trabajo](#)

- 7 Bar for FLUID-10S code

◦ 7 Bar per il codice FLUID-10S

◦ 7 Bar para el código FLUID-10S

- 12 Bar

◦ 12 Bar

◦ 12 Bar

- 35 Bar max working pressure

◦ 35 Bar max pressione d'esercizio

◦ 35 Bar máx presión de trabajo

---

[working temperature](#) > [temperatura d'esercizio](#) > [temperatura de trabajo](#)

- From -20°C to 100°C

◦ Da -20°C a 100°C

◦ De -20°C a 100°C



---

thread > filettature > rosca

- parallel BSPP from GI/4" to GI/2"
- taper BSPT from RI/4" to RI/2"
- cilindrica BSPP da GI/4" a GI/2"
- conica BSPT da RI/4" a RI/2"
- cilíndricas BSPP de GI/4" a GI/2"
- cónica BSPT de RI/4" a RI/2"

---

DN > DN > DN

- 5,5 mm
- 5,5 mm
- 5,5 mm

---

applications > applicazioni > aplicaciones

**FLUID-ION:**

- pneumatics, not aggressive and not oxidant fluids. Indicated especially for applications with pneumatic tools, compressed air equipments and industrial machineries. Use the original F-Line connections NE-IO series in order to guarantee a correct working.

**FLUID-IOS:**

- quick couplings in conformity with the safety standard ISO 4414 and UNE-EN 983-1996. The disconnection phase is divided in two steps: in the first step the air is downloaded downstream, in the second step the coupling is mechanically disconnected from the connector avoiding dangerous accidental disconnections. They're indicated especially for applications with pneumatic tools, compressed air equipments and industrial machineries. Increase safety at work by downloading the air silently. Use the original F-Line connections serie NE-IO in order to guarantee a correct working.

**FLUID-ION:**

- pneumatica in generale, fluidi non aggressivi e non ossidanti. Indicati soprattutto per applicazioni con strumenti pneumatici, impianti ad aria compressa e macchinari industriali. Utilizzare gli accoppiamenti originali F-Line della serie NE-IO per un corretto funzionamento.

**FLUID-IOS:**

- giunto automatico conforme alle norme di sicurezza ISO 4414 e UNE-EN 983-1996. La disconnessione avviene in due tempi, la prima fase scarica l'aria a valle, la seconda sgancia meccanicamente il giunto dall'innesto evitando così pericolose disconnessioni accidentali. Indicati soprattutto per applicazioni con strumenti pneumatici, impianti ad aria compressa e macchinari industriali. Aumenta la sicurezza sul luogo di lavoro con un meccanismo di scarico dell'aria studiato appositamente. Utilizzare gli accoppiamenti originali F-Line della serie NE-IO per un corretto funzionamento.

**FLUID-ION:**

- Neumática y fluidos no agresivos ni oxidantes. Especialmente indicados para aplicaciones con herramienta neumática, compresores y maquinaria industrial. Utilice los acoplamientos originales F-Line series NE -IO para garantizar un correcto funcionamiento.

**FLUID-IOS:**

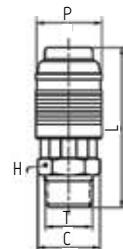
- enchufes rápidos en conformidad con la Norma ISO 4414 y UNE-E 983-1996. La desconexión está dividida en dos pasos: en el primer paso se produce la descarga, en el segundo paso el acoplamiento es desconectado mecánicamente del enchufe, evitando peligrosas desconexiones. Especialmente indicado para aplicaciones con herramienta neumática, compresores y maquinaria industrial. Incrementa la seguridad en el trabajo reduciendo el nivel de ruidos en la desconexión. Utilice los acoplamientos originales F-Line series NE -IO para garantizar un correcto funcionamiento.

male quick coupler > giunto maschio > enchufe rápido macho

## FLUID-ION-M



| CODE             | T     | P    | L    | C    | H  | □ |
|------------------|-------|------|------|------|----|---|
| F-FLUID-ION-M1/4 | R1/4" | 23,4 | 54,5 | 19   | 17 | I |
| F-FLUID-ION-M3/8 | R3/8" | 23,4 | 55,5 | 19   | 17 | I |
| F-FLUID-ION-M1/2 | R1/2" | 23,4 | 60   | 24,6 | 22 | I |

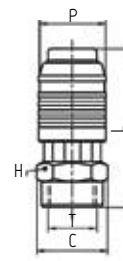


female quick coupler > giunto femmina > enchufe rápido hembra

## FLUID-ION-H



| CODE             | T     | P    | L    | C    | H  | □ |
|------------------|-------|------|------|------|----|---|
| F-FLUID-ION-H1/4 | G1/4" | 23,4 | 52,5 | 21,5 | 19 | I |
| F-FLUID-ION-H3/8 | G3/8" | 23,4 | 54   | 24,6 | 22 | I |
| F-FLUID-ION-H1/2 | G1/2" | 23,4 | 58,2 | 27,5 | 25 | I |



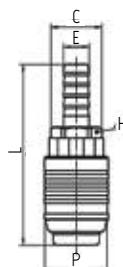
quick coupler with barb connector > giunto portagomma > enchufe con manguera

## FLUID-ION-E



| CODE            | E    | P    | L  | C  | H  | T*       | □ |
|-----------------|------|------|----|----|----|----------|---|
| F-FLUID-ION-E8  | 9,2  | 23,4 | 62 | 19 | 17 | CAU 0815 | I |
| F-FLUID-ION-E10 | 11,2 | 23,4 | 66 | 19 | 17 | CAU 1018 | I |

T\* caucho tube compatibility > compatibilità con tubo caucho > compatibilidad con tubo de caucho

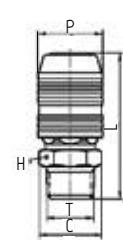


security male quick coupler > giunto di sicurezza maschio > enchufe de seguridad macho

## FLUID-IOS-M



| CODE             | T     | P    | L    | C    | H  | □ |
|------------------|-------|------|------|------|----|---|
| F-FLUID-IOS-M1/4 | R1/4" | 25,6 | 53,7 | 21,5 | 19 | I |
| F-FLUID-IOS-M3/8 | R3/8" | 25,6 | 55,2 | 24,6 | 22 | I |
| F-FLUID-IOS-M1/2 | R1/2" | 25,6 | 59,4 | 27,5 | 25 | I |



air&fluid distibution network <

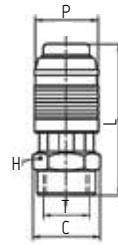
quick couplings <

security female quick coupler > giunto di sicurezza femmina > enchufe de seguridad hembra

**FLUID-10S-H**



| CODE             | T     | P    | L    | C    | H  | □ |
|------------------|-------|------|------|------|----|---|
| F-FLUID-10S-H1/4 | G1/4" | 25,6 | 53,7 | 21,5 | 19 | I |
| F-FLUID-10S-H3/8 | G3/8" | 25,6 | 55,2 | 24,6 | 22 | I |
| F-FLUID-10S-H1/2 | G1/2" | 25,6 | 59,4 | 27,5 | 25 | I |



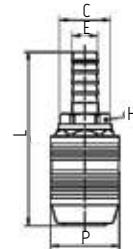
security quick coupler with barb connector > giunto di sicurezza con portagomma > enchufe de seguridad con manguera

**FLUID-10S-E**



| CODE            | E    | P    | L    | C  | H  | T*       | □ |
|-----------------|------|------|------|----|----|----------|---|
| F-FLUID-10S-E8  | 9,2  | 25,6 | 63,2 | 19 | 17 | CAU 0815 | I |
| F-FLUID-10S-E10 | 11,2 | 25,6 | 67,2 | 19 | 17 | CAU 1018 | I |

T\*caucho tube compatibility > compatibilità con tubo caucho > compatibilidad con tubo de caucho

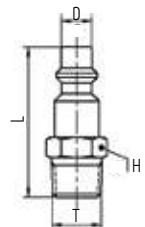


male connection > innesto maschio > acoplamiento macho

**NE-10M**



| CODE         | T     | D | L    | H  | □ |
|--------------|-------|---|------|----|---|
| F-NE-10M     | G1/4" | 8 | 40   | 14 | I |
| F-NE-10M-3/8 | G3/8" | 8 | 42,5 | 17 | I |
| F-NE-10M-1/2 | G1/2" | 8 | 46   | 22 | I |

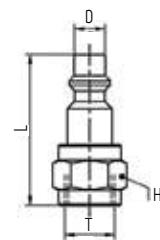


female connection > innesto femmina > acoplamiento hembra

**NE-10H**



| CODE         | T     | D | L    | H  | □ |
|--------------|-------|---|------|----|---|
| F-NE-10H     | G1/4" | 8 | 40   | 17 | I |
| F-NE-10H-3/8 | G3/8" | 8 | 41,5 | 22 | I |
| F-NE-10H-1/2 | G1/2" | 8 | 44   | 25 | I |



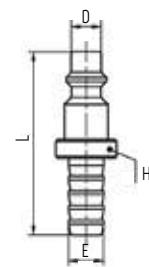
connection with barb connector > innesto portagomma > acoplamiento con manguera

**NE-10E**



| CODE        | E    | D | L  | H  | T*       | □ |
|-------------|------|---|----|----|----------|---|
| F-NE-10E-6  | 7,2  | 8 | 46 | 14 | CAU 0613 | I |
| F-NE-10E-8  | 9,2  | 8 | 47 | 14 | CAU 0815 | I |
| F-NE-10E-10 | 11,2 | 8 | 52 | 14 | CAU 1018 | I |

T\*caucho tube compatibility > compatibilità con tubo caucho > compatibilidad con tubo de caucho



# > Quick Couplings



Fluid-20N ISO 6150-B-15

[technical specifications](#) > [specifiche tecniche](#) > [especificaciones técnicas](#)

---

[materials](#) > [materiali](#) > [materiales](#)

**Body, adapter and valve:**

- nickel-plated brass

Corpo, adattatore e valvola:

- ottone nichelato

Cuerpo, adaptator y válvula:

- latón niquelado

---

**Slide:**

- nickel-plated steel

Corsoio:

- ottone nichelato

Manguito:

- latón niquelado

---

**O'ring:**

- NBR

O'ring:

- NBR

Juntas:

- NBR

---

**Balls:**

- chrome steel

Sfere:

- acciaio cromato

Bolas:

- acero cromado

---

**Spring:**

- stainless steel AISI 302

Molla:

- Acciaio inox AISI 302

Muelles:

- acero inox AISI 302

---

**Connections:**

- nickel-plated steel

Innesto:

- acciaio nichelato

Acoplamiento:

- acero niquelato

---

[working pressure](#) > [pressione d'esercizio](#) > [presión de trabajo](#)

- 12 Bar

- 12 Bar

- 12 Bar

- 35 Bar max working pressure

- 35 Bar max pressione d'esercizio

- 35 Bar máx presión de trabajo

---

[working temperature](#) > [temperatura d'esercizio](#) > [temperatura de trabajo](#)

- From -20°C to 100°C

- Da -20°C a 100°C

- De -20°C a 100°C



---

**thread > filettature > rosca**

- parallel BSPP from G3/8"
  - taper BSPT from R3/8" to RI/2"
  - cilindrica BSPP da G3/8"
  - conica BSPT da R3/8" a RI/2"
  - cilíndricas BSPP de G3/8"
  - cónica BSPT de R3/8" a RI/2"
- 

**DN > DN > DN**

- 8 mm
  - 8 mm
  - 8 mm
- 

**applications > applicazioni > aplicaciones**

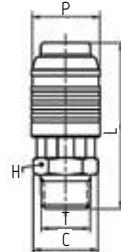
- pneumatics generally for not aggressive and not oxidant fluids. Indicated especially for applications with pneumatic tools, compressed air equipments and industrial machineries. Use the original F-Line connections of NE-20 series in order to guarantee a correct working.
- pneumatica in generale per fluidi non aggressivi e non ossidanti. Indicati soprattutto per applicazioni con strumenti pneumatici, impianti ad aria compressa e macchinari industriali. Utilizzare gli accoppiamenti originali F-Line della serie NE-20 per un corretto funzionamento.
- neumática y fluidos no agresivos ni oxidantes. Especialmente indicado para aplicaciones con herramienta neumática, compresores y maquinaria industrial. Utilice los acoplamientos originales F-Line series NE -20 para garantizar un correcto funcionamiento.

male quick coupler > giunto maschio > enchufe rápido macho

### FLUID-20N-M



| CODE             | T     | P    | L    | C    | H  | □ |
|------------------|-------|------|------|------|----|---|
| F-FLUID-20N-M3/8 | R3/8" | 27,6 | 59,5 | 23,2 | 21 | I |
| F-FLUID-20N-M1/2 | R1/2" | 27,6 | 63   | 24,7 | 22 | I |

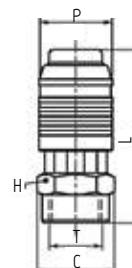


female quick coupler > giunto femmina > enchufe rápido hembra

### FLUID-20N-H



| CODE             | T     | P    | L  | C    | H  | □ |
|------------------|-------|------|----|------|----|---|
| F-FLUID-20N-H3/8 | G3/8" | 27,6 | 59 | 24,7 | 22 | I |

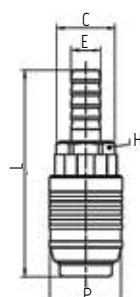


quick coupler with barb connector > giunto portagomma > enchufe con manguera

### FLUID-20N-E



| CODE            | E    | P    | L  | C    | H  | T*       | □ |
|-----------------|------|------|----|------|----|----------|---|
| F-FLUID-20N-E10 | 11,2 | 27,6 | 73 | 23,6 | 21 | CAU 1018 | I |



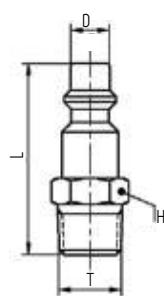
T\*caucho tube compatibility > compatibilità con tubo caucho > compatibilidad con tubo de caucho

male connection > innesto maschio > acoplamiento macho

### NE-20M



| CODE     | T     | D    | L  | H  | □ |
|----------|-------|------|----|----|---|
| F-NE-20M | R3/8" | 10,9 | 45 | 17 | I |



# air&fluid distibution network <

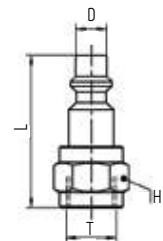
## quick couplings <

female connection > innesto femmina > acoplamiento hembra

**NE-20H**



| CODE     | T     | D    | L    | H  | I |
|----------|-------|------|------|----|---|
| F-NE-20H | G3/8" | 10,9 | 46,6 | 22 | I |



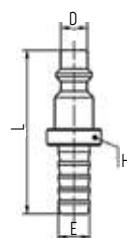
connection with barb connector > innesto portagomma > acoplamiento con manguera

**NE-20E**

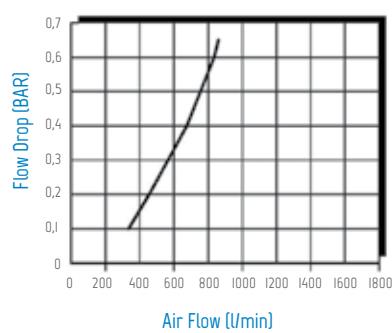


| CODE     | E    | D    | L  | H  | T*       | I |
|----------|------|------|----|----|----------|---|
| F-NE-20E | 11,2 | 10,9 | 54 | 20 | CAU 1018 | I |

T\*caucho tube compatibility > compatibilità con tubo caucho > compatibilidad con tubo de caucho

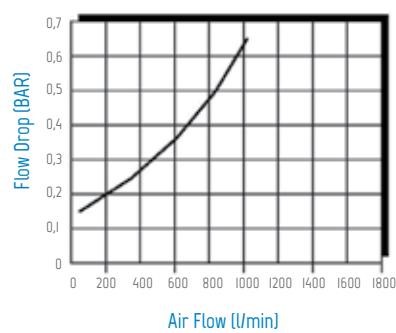


**drop flow general > perdite di carico generali > pérdidas de carga general**



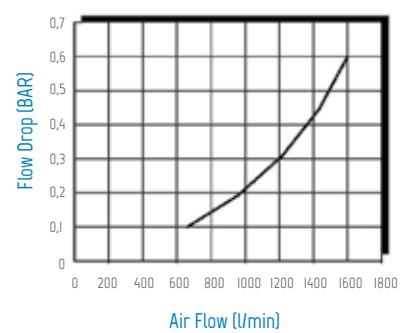
750 l/min

The chart has been created considering  
a pressure of 6 Bar.



840 l/min

Il grafico è stato realizzato tenendo conto di  
una pressione d'esercizio pari a 6 Bar.



1500 l/min

El gráfico fue realizado considerando  
una presión de trabajo de 6 Bar.

# > F.R.L. units



technical specifications > specifiche tecniche > especificaciones técnicas

air filters > filtro aria > filtro aéreo

The large filtering surface allows the F-Line filters to have a minimum pressure drop also in hard operating conditions. The automatic drain mode in the 1/4" version is manual (it's necessary to push the fitting to drain), while in the 1/2" version it's both manual and semi-automatic (it drains automatically when the system is drainaged).

L'ampia superficie dell'elemento filtrante permette ai filtri F-Line di avere una minima caduta di pressione nel tempo anche in condizioni di lavoro estreme. Lo scarico della condensa nella versione da 1/4" è manuale (bisogna spingere il raccordo per mettere in scarico), mentre nella versione da 1/2" è sia manuale che semiautomatico (scarica in automatico la condensa all'atto della messa in scarico dell'impianto).

La amplia superficie del elemento filtrante, permite a los equipos F-Line una mínima pérdida de presión en condiciones de trabajo extremas. La descarga de los condensados en la versión de 1/4" es manual (mediante una ligera presión del racor, se permite la descarga), mientras que en la versión de 1/2" es manual y también semiautomática (en semiautomática la descarga de los condensados se produce al mismo tiempo que la descarga de la red).

| CODE   | nominal flow rate<br>portata nominale<br>caudal nominal | blow capacity<br>capacità tazza<br>capacidad del recipiente | max working pressure<br>pressione max d'esercizio<br>presión máx de trabajo | working temperature<br>temperatura d'esercizio<br>temperatura de trabajo | min flow of oil drop<br>flusso min d'olio<br>min flujo de aceite |
|--------|---|---|---|--|--|
| F-FP02 | 750 Nl/min  | 15 Cm <sup>3</sup>  | 10 Bar  | 5°C - 60°C   | 25 µm  |
| F-FM04 | 4000 Nl/min   | 45 Cm <sup>3</sup>  | 10 Bar  | 5°C - 60°C   | 25 µm  |

pressure regulator > riduttore di pressione > regulador de presión

The F-Line pressure regulators with diaphragm are combined with relieving (a device that allows the drainage of the accumulated overpressure in excess). By the lockout of regulation, the knob the setting out of pressure regulation stays still.

I riduttori di pressione della serie F-Line a membrana sono dotati di rieliving (dispositivo che permette lo scarico della sovrappressione accumulata in eccesso a valle). L'impostazione della regolazione della pressione rimane fissa grazie alla possibilità di blocco della manopola.

El regulador de presión de la serie F-Line mediante membrana está equipado con un sistema de compensación (dispositivo que permite la descarga de la sobrepresión acumulada en exceso). El ajuste de la regulación de presión se realiza mediante el bloqueo de la maneta.

| CODE             | nominal flow rate<br>portata nominale<br>caudal nominal | adjustment range<br>campo di regolazione<br>rango de ajuste | max working pressure<br>pressione max d'esercizio<br>presión máx de trabajo | working temperature<br>temperatura d'esercizio<br>temperatura de trabajo |
|------------------|---|---|---|--|
| F-RP02 / F-RPC02 | 550 Nl/min  | 0,5 Bar - 8,5 Bar   | 10 BAR  | 5°C - 60°C   |
| F-RP04 / F-RPG04 | 6000 Nl/min   | 0,5 Bar - 8,5 Bar   | 10 BAR  | 5°C - 60°C   |



## [lubricators > lubrificante > lubricador](#)

The special shape of bowl protection allows to see the level of the oil in the lubricator. The flow of the circulating oil can be observed from the seethrough window and can be regulated by the special register screw.

The G1/4" lubricators must be charged after the depressurization of the unit. The G1/2" lubricators can be filled with oil by gravity paying attention to not to close completely the hole during the operations.

La particolare esecuzione del copri tazza permette di vedere il livello del lubrificante presente nel lubrificatore. Il flusso di olio immesso in circolo è visibile dalla cupola trasparente e può essere regolato dall'apposita vite di registro. I lubrificatori con filetto G1/4" devono essere caricati depressurizzando l'impianto. I lubrificatori da G1/2" possono essere riempiti di olio per gravità avendo cura di versare l'olio in modo da non ostruire completamente il foro durante il riempimento.

*El particular diseño del vaso con protección permite ver el nivel de aceite presente en el lubricador, el paso de aceite es visible a través de la mirilla transparente situada en la parte superior, y puede ser ajustada mediante un tornillo regulador. El lubricador con rosca G1/4 deberá ser llenado en ausencia de presión, desconectado de la red. El lubricador de G1/2" puede ser llenado de aceite teniendo cuidado de no obstruir completamente el agujero durante el llenado.*

| CODE   | nominal flow rate<br>portata nominale<br>caudal nominal | blow capacity<br>capacità tazza<br>capacidad del recipiente | max working pressure<br>pressione max d'esercizio<br>presión máx de trabajo | working temperature<br>temperatura d'esercizio<br>temperatura de trabajo | min flow of oil drop<br>flusso min d'olio<br>min flujo de aceite |
|--------|---|---|---|--|--|
| F-LP02 | 800 NL/min  | 25 Cm <sup>3</sup>  | 10 Bar  | 5°C - 60°C   | 15 NL/min  |
| F-LM04 | 5000 NL/min   | 130 Cm <sup>3</sup>   | 10 Bar  | 5°C - 60°C   | 50 NL/min  |

## [filters regulator > filtri riduttori > filtro regulador](#)

The filter/regulators series join the functions of filter and pressure regulator.

I filtri riduttori della serie mantengono le caratteristiche di modularità unendo in un unico elemento filtro e riduttore di pressione.

*El filtro regulador de la serie combina en un único elemento el filtro y el regulador de presión.*

| CODE   | nominal flow rate<br>portata nominale<br>caudal nominal | blow capacity<br>capacità tazza<br>capacidad del recipiente | max working pressure<br>pressione max d'esercizio<br>presión máx de trabajo | working temperature<br>temperatura d'esercizio<br>temperatura de trabajo | min flow of oil drop<br>flusso min d'olio<br>min flujo de aceite |
|--------|---|---|---|--|--|
| F-LP02 | 800 NL/MIN  | 25 CM <sup>3</sup>  | 10 BAR  | 5°C - 60°C   | 15 NL/MIN  |
| F-LM04 | 5000 NL/MIN   | 130 CM <sup>3</sup>   | 10 BAR  | 5°C - 60°C   | 50 NL/MIN  |

## [drain mode > filtri riduttori > filtro regulador](#)

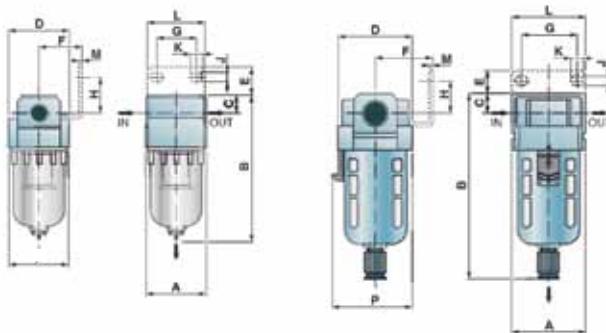
Settled to at the end of the line or in the lower point of a system, it allows through a floater to drain automatically when the system is in pressure or manually when it is drained. The male thread 1/8" allows to mount a fitting for channelling the condensation.

Posizionato a fine linea o nel punto più basso dell'impianto, permette tramite un galleggiante di scaricare automaticamente la condensa ad impianto in pressione oppure manualmente ad impianto scarico. Il filetto maschio da 1/8" permette di montare un raccordo per convogliare la condensa.

*Instalado al final de una línea o en el punto más bajo de la red, permite la descarga automática de los condensados mediante una boya, o bien manualmente. Incorpora un racor macho de 1/8" para permitir el montaje de un racor para la recogida de los condensados.*

[filter > filtro > filtros](#)
**FP**

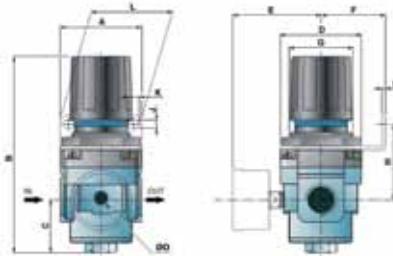
| CODE   | thread | A  | B     | C  | D  | E  | F  | G  | H  | J   | K    | L  | M   | P  | weight (g) |   |
|--------|--------|----|-------|----|----|----|----|----|----|-----|------|----|-----|----|------------|---|
| F-FP02 | G1/4"  | 40 | 97,5  | II | 40 | 17 | 30 | 26 | 22 | 5,4 | 8,4  | 40 | 2,3 | 40 | 0,19       | I |
| F-FM04 | G1/2"  | 70 | 168,5 | 18 | 70 | 17 | 50 | 54 | 26 | 8,5 | 10,5 | 70 | 2,3 | 73 | 0,55       | I |


**body > corpo > cuerpo**
**aluminum > alluminio > aluminio**
**blow > tazza > vaso**
**polycarbonate > policarbonato > policarbonato**
**protection blow > protezione tazza > protección**
**steel > acciaio > acero**
**drain mode > scarico condensa > purga**
**brass + ABS > ottone + ABS > latón + ABS**
**gaskets > tenute > juntas**
**NBR**
**whirlpool element > elemento vorticante > centrifugador**
**ABS**
**filter > filtro > filtro**
**nylon**
[regulator > regolatore > regulador](#)
**RP**

| CODE   | thread | A  | B     | C    | D  | E    | F    | G       | H  | J   | K    | L  | M   | O    | weight (g) |   |
|--------|--------|----|-------|------|----|------|------|---------|----|-----|------|----|-----|------|------------|---|
| F-RP02 | G1/4"  | 40 | 95    | 17   | 40 | 56,8 | 30   | M32X1,5 | 44 | 5,4 | 15,4 | 55 | 2,3 | G1/8 | 0,27       | I |
| F-RP04 | G1/2"  | 70 | 149,5 | 37,5 | 70 | 65,5 | 49,2 | M52X1,5 | 54 | 8,5 | 10,5 | 70 | 2,3 | G1/4 | 0,84       | I |

| CODE     | thread | A  | B     | C    | D  | E    | F    | G       | H  | J   | K    | L  | M   | P    | weight (g) |   |
|----------|--------|----|-------|------|----|------|------|---------|----|-----|------|----|-----|------|------------|---|
| F-RPG02* | G1/4"  | 40 | 95    | 17   | 40 | 56,8 | 30   | M32X1,5 | 44 | 5,4 | 15,4 | 55 | 2,3 | G1/8 | 0,49       | I |
| F-RPG04* | G1/2"  | 70 | 149,5 | 37,5 | 70 | 65,5 | 49,2 | M52X1,5 | 54 | 8,5 | 10,5 | 70 | 2,3 | G1/4 | 1,00       | I |

*\*: with gauges > fornito con manometro > con manómetro*

**It is possible to receive it with the manometer included**
**è possibile riceverlo fornito di manometro**
**es posible recibirla con manómetro incluido**
**MABP40R0138 [F-RP02]**
**MABP50R0238 [F-RP04]**

**body > corpo > cuerpo**
**aluminum > alluminio > aluminio**
**diaphragm > membrana > membrana**
**NBR**
**spring > molla > muelle**
**galvanized steel > acciaio zincato > acero cincado**
**knob > manopola > maneta**
**charged nylon > nylon caricato > nylon cargado**
**gaskets > tenute > juntas**
**NBR**
**poppet > otturatore > obturador**
**brass + ABS > ottone + ABS > latón + ABS**

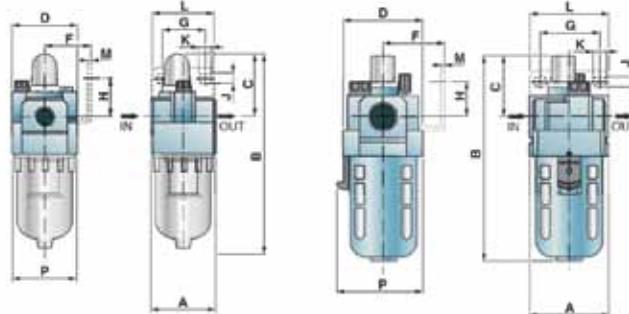
# air&fluid distibution network <

## F.R.L. units <

[lubrificator](#) > lubrificatore > lubrificador

LP

| CODE   | thread | A  | B   | C  | D  | F  | G  | H  | J   | K    | L  | M   | P  | weight (g) |   |
|--------|--------|----|-----|----|----|----|----|----|-----|------|----|-----|----|------------|---|
| F-LP02 | G1/4"  | 40 | 122 | 38 | 40 | 30 | 27 | 22 | 5,4 | 8,4  | 40 | 2,3 | 40 | 0,22       | I |
| F-LM04 | G1/2"  | 70 | 177 | 41 | 70 | 50 | 54 | 26 | 8,5 | 10,5 | 70 | 2,3 | 73 | 0,56       | I |



[body](#) > corpo > cuerpo

aluminum > alluminio > aluminio

[blow](#) > tazza > vaso

polycarbonate > policarbonato > policarbonato

[gaskets](#) > tenute > juntas

NBR

[filler oil cap](#) > tappo riempimento olio > tapón relleno de aceite

ABS

[oil screw adjustment](#) > vite regolazione olio > tornillo regulador

brass + ABS > ottone + ABS > latón + ABS

[venturi device](#) > dispositivo di venturi > dispositivo venturi

PU

[venturi support element](#) > supporto elemento di venturi > soporte del elemento venturi

PU

[protection blow](#) > protezione tazza > protección del vaso

steel > acciaio > acero

[filter regulator](#) > filtro regolatore > filtro regulador

FRP

| CODE    | thread | A  | B     | C   | D  | E    | F    | G       | H    | J   | K    | L  | M   | P  | O    | weight (g) |   |
|---------|--------|----|-------|-----|----|------|------|---------|------|-----|------|----|-----|----|------|------------|---|
| F-FRP02 | G1/4"  | 40 | 164,5 | 78  | 40 | 56,8 | 30   | M32X1,5 | 43,5 | 5,4 | 15,4 | 55 | 2,3 | 40 | G1/8 | 0,36       | I |
| F-FRM04 | G1/2"  | 70 | 262   | 112 | 70 | 70,5 | 49,2 | M52X1,5 | 53,5 | 8,5 | 10,5 | 70 | 2,3 | 73 | G1/4 | 1,15       | I |

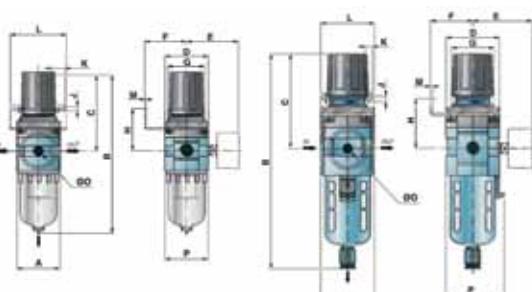
| CODE      | thread | A  | B     | C   | D  | E    | F    | G       | H    | J   | K    | L  | M   | P  | O    | weight (g) |   |
|-----------|--------|----|-------|-----|----|------|------|---------|------|-----|------|----|-----|----|------|------------|---|
| F-FRPG02* | G1/4"  | 40 | 164,5 | 78  | 40 | 56,8 | 30   | M32X1,5 | 43,5 | 5,4 | 15,4 | 55 | 2,3 | 40 | G1/8 | 0,36       | I |
| F-FRMG04* | G1/2"  | 70 | 262   | 112 | 70 | 70,5 | 49,2 | M52X1,5 | 53,5 | 8,5 | 10,5 | 70 | 2,3 | 73 | G1/4 | 1,15       | I |

\*: with gauges > fornito con manometro > con manómetro



It is possible to receive it with the manometer included  
è possibile riceverlo fornito di manometro  
es posible recibirla con manómetro incluido

MABP40R0138 (F-RP02)  
MABP50R0238 (F-RP04)



automatic drain system > scarico condensa temporizzato > sistema de drenaje automático

## SAT

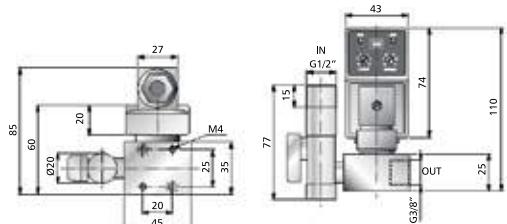
| CODE       | voltage | DC power | AC power | AC inrush power | working pressure | orifice size | weight (g) | □ |
|------------|---------|----------|----------|-----------------|------------------|--------------|------------|---|
| F-SAT24AC  | 24V DC  | 10 W     |          |                 | 0 - 10 Bar       | 2 mm         | 0,68       | I |
| F-SAT24AC  | 24V AC  |          | 13 VA    | 23 VA           | 0 - 10 Bar       | 2 mm         | 0,68       | I |
| F-SAT220AC | 220V AC |          | 13 VA    | 23 VA           | 0 - 10 Bar       | 2 mm         | 0,68       | I |



Tierre Group timed condensation drain is normally connected to the pneumatic network at the lowest point and has to be electrically powered. Two grips put on it allow the setting of the gap and the opening time.

Lo scarico di condensa temporizzato Tierre Group viene normalmente collegato alla rete pneumatica nel punto più basso e deve essere alimentato elettricamente. Due manopole poste sul corpo permettono di impostare l'intervallo e il tempo di apertura.

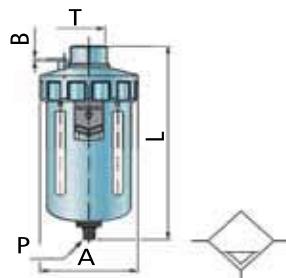
La descarga de condensacion programada Tierre Group está normalmente conectada a la red pneumatica en el punto mas bajo y tiene que ser alimentada electricamente. Dos empuñaduras puestas sobre el cuerpo permiten de seleccionar el intervalo y el tiempo de abertura.



automatic drain mode > scarico condensa automatico > purga automática de condensador

## SA

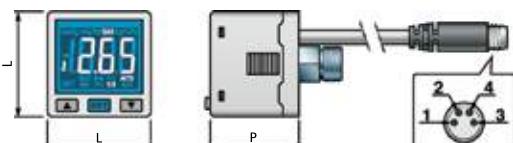
| CODE   | T     | A  | B   | L   | P    | temperature | operating pressure  | weight (g) | □ |
|--------|-------|----|-----|-----|------|-------------|---------------------|------------|---|
| F-SA04 | G1/2" | 72 | 2,5 | 162 | G1/8 | +5°C +60°C  | 0,15 Bar - 1,00 Bar | 0,45       | I |



electronic pressure switches > pressostato elettronico > presostatos electronico

## PRSD

| CODE         | L  | P  | acceptable pressure | pressure range | connection | temperature | indicator accuracy  | weight (g) | □ |
|--------------|----|----|---------------------|----------------|------------|-------------|---------------------|------------|---|
| F-PRSD-S-G01 | 30 | 25 | 2,5                 | 162            | G1/8       | +5°C +60°C  | 0,15 Bar - 1,00 Bar | 0,25       | I |



I - brown • marrone • marrón (+) 2 - white • bianco • blanco (analog. OUT) 3 - blue • blu • azul (-) 4 - black • nero • negro (OUT)

This electronic pressure switches, designed for pneumatic use, allow the commutation of two electronic micro-switches once two different preset pressure values are reached. Reaching the set pressure values, the display of Tierre Group pressure switch changes its color. It is supplied with 2 meters length cable.

I pressostati elettronici, progettati per l'impiego nel settore della pneumatica, permettono la commutazione di due microinterruttori elettronici al raggiungimento di due distinti valori di pressione predeterminati. Al raggiungimento dei valori di pressione impostati, il display del pressostato Tierre Group cambia colorazione. Fornito con 2 metri di cavo.

Los presostatos electronicos, diseñados para utilizar pneumático, permiten la comutación de dos microinterruptores electronicos cuando se llega a dos distintos valores de presión pre-establecidos. Cuando se alcanzan los valores de presión seleccionados, el display del presostato Tierre Group cambia su color. Están suministrados con un cable largo 2 metros.

# air&fluid distibution network <

## F.R.L. units <

L bracket > staffa a L > sujetación

### STRP

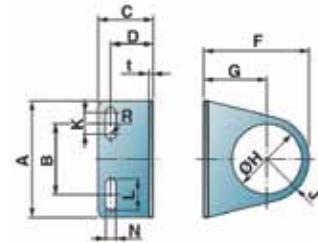
| CODE     | A  | B  | C  | D  | F    | G    | H    | J  | K  | L    | N   | R    | t   | weight [g] | □ |
|----------|----|----|----|----|------|------|------|----|----|------|-----|------|-----|------------|---|
| F-STRP02 | 53 | 34 | 25 | 19 | 50   | 30   | 33,5 | 20 | 10 | 15,4 | 5,4 | 2,7  | 2,3 | 35         | I |
| F-STRP04 | 70 | 54 | 27 | 18 | 79,5 | 49,2 | 52,5 | 30 | 2  | 10,5 | 8,5 | 4,25 | 2,3 | 61         | I |



to be used with: RP & FRP

da utilizzare con: RP & FRP

para ser utilizado con: RP & FRP



L bracket > staffa a L > sujetación

### STFL

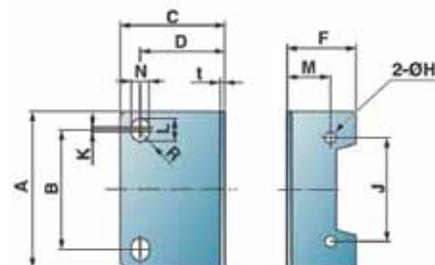
| CODE     | A  | B  | C  | D  | F    | H   | J  | K | L    | M  | N   | R    | t   | weight [g] | □ |
|----------|----|----|----|----|------|-----|----|---|------|----|-----|------|-----|------------|---|
| F-STFL02 | 40 | 27 | 33 | 27 | 18   | 4,5 | 26 | 3 | 8,4  | 14 | 5,4 | 2,7  | 2,3 | 25         | I |
| F-STFL04 | 70 | 54 | 47 | 38 | 27,5 | 5,5 | 47 | 2 | 10,5 | 20 | 8,5 | 4,25 | 2,3 | 69         | I |



to be used with: FP & LP

da utilizzare con: FP& LP

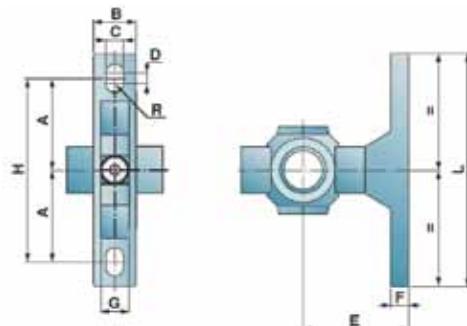
para ser utilizado con: FP & LP



T bracket > staffa a T > sujetación mural

### ST

| CODE   | A  | B  | C   | D | E  | F | G  | H  | L   | R    | weight [g] | □ |
|--------|----|----|-----|---|----|---|----|----|-----|------|------------|---|
| F-ST02 | 24 | 15 | 5,5 | 3 | 30 | 5 | 10 | 48 | 66  | 2,75 | 76         | I |
| F-ST04 | 40 | 22 | 9   | 4 | 50 | 7 | 14 | 80 | 100 | 4,5  | 140        | I |



# > Tubes for water



[technical specifications](#) > [specifiche tecniche](#) > [especificaciones técnicas](#)

---

[materials](#) > [materiali](#) > [materiales](#)

AX :

- Stainless steel inox AISI 316 Tig welded
- Treatment: annealed
- HV Vichers: I50:I70 HV
- Tollerance: +/- 0,1

AX:

- Acciaio Inox AISI 316 saldato a Tig
- Trattamento: ricotto
- HV Vichers: I50:I70 HV
- Tolleranza: +/- 0,1

AX:

- Acero inoxidable AISI 316 con soldadura Tig
- Tratamiento: templado
- HV Vichers: I50:I70 HV
- Tolerancia: +/- 0,1

---

PE:

- Polyethylene
- Tollerance: +/- 0,1

PE:

- Polietilene
- Tolleranza: +/- 0,1

PE:

- Polietileno
- Tolerancia: +/- 0,1

---

[working pressure](#) > [pressione d'esercizio](#) > [presión de trabajo](#)

AX :

- 13 Bar

AX:

- 13 Bar

AX:

- 13 Bar

---

PE :

- 11 Bar

PE:

- 11 Bar

PE:

- 11 Bar

---

[working temperature](#) > [temperatura d'esercizio](#) > [temperatura de trabajo](#)

AX :

- from -10°C to 75°C

AX:

- da -10°C a +90°C

AX:

- de -10°C a +90°C

---

PE :

- from -10°C to 75°C

PE:

- da -20°C a +65°C

PE:

- de -20°C a +65°C



---

[applications](#) > [applicazioni](#) > [aplicaciones](#)

AX:

- Applications: food equipment, chemical, naval, pharmaceutical and medical industry

AX:

- Applicazioni: impianti alimentari, chimica, navale, farmaceutica e medica

AX:

- Aplicaciones: Industria alimentaria, química, naval, farmacéutica y medica

---

PE:

- Suitable for food equipment

PE:

- Idoneo per impianti alimentari

PE:

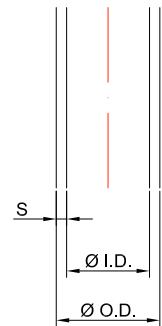
- Adecuado para industria alimentaria

inox AISI 316 tube > tubo inox AISI 316 > tubo de acero inox AISI 316

**AX**



| CODE      | O.D. | I.D. | S   | bar lenght |   |
|-----------|------|------|-----|------------|---|
| F-AX 1513 | 15   | 13   | 1   | 3          | 1 |
| F-AX 2220 | 22   | 20   | 1,2 | 3          | 1 |
| F-AX 2826 | 28   | 26   | 1,2 | 3          | 1 |

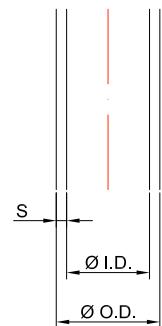


polyethylene tube > tubo in polietilene > tubo de polietileno

**PE**



| CODE      | O.D. | I.D. | S    | color | roll (mt.) |
|-----------|------|------|------|-------|------------|
| F-PE 1515 | 15   | 11,5 | 1,75 | ● ●   |            |

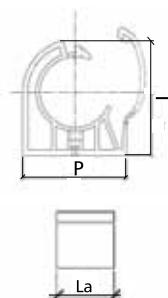


pipe clip for rigid tubes > clip di fissaggio per tubi rigidi > clip de sujeción para tubo rígido

**STFT**



| CODE      | O.D. | P    | L    | La | weight (g) |    |
|-----------|------|------|------|----|------------|----|
| F-STFT 15 | 15   | 29,7 | 30,2 | 15 | 4          | 10 |
| F-STFT 22 | 22   | 39,5 | 38   | 15 | 6          | 10 |
| F-STFT 28 | 28   | 48   | 45   | 15 | 10         | 10 |



air&fluid distibution network <

tubes for water <

---

isophonic clamp for rigid tubes DIN 4109 > collare isofonico per sostegno tubazioni rigide DIN 4109 >  
abrazadera para tubos rígidos DIN 4109

CIS

| CODE     | size range | thread | band thickness | band width | weight (g) |  |
|----------|------------|--------|----------------|------------|------------|---|
| F-CIS 15 | 13 - 17    | M8     | 2              | 20         | 60         | 10  |
| F-CIS 22 | 20 - 24    | M8     | 2              | 20         | 120        | 10  |
| F-CIS 28 | 26 - 30    | M8     | 2              | 20         | 170        | 10  |



# > Water Fittings



[technical specifications](#) > [specifiche tecniche](#) > [especificaciones técnicas](#)

---

[materials](#) > [materiali](#) > [materiales](#)

- acetal resin
  - resina acetalica
  - *resina de acetal*
- 

[thread](#) > [filettature](#) > [rosca](#)

- parallel BSPP
  - cilindrica BSPP
  - *cilíndricas BSPP*
  - taper BSPT
  - conica BSPT
  - *cónica BSPT*
- 

[working pressure](#) > [pressione d'esercizio](#) > [presión de trabajo](#)

- 1 Bar at 20°C
  - 1 Bar a 20°C
  - *1 Bar a 20°C*
  - 7 Bar at 65°C
  - 7 Bar a 65°C
  - *7 Bar a 65°C*
- 

[applications](#) > [applicazioni](#) > [aplicaciones](#)

- water & vacuum
- acqua & vuoto
- *agua y vacío*



---

**features > caratteristiche > características**

◦ the Tierre Group push-in fittings are manufactured with non-toxic materials approved by FDA, certified WRAS, NSF 51 & 61, DMI74. They are quick and convenient to assemble thanks to the unique oval collet design and all the connections can be assembled and disassembled repeatedly. Widely used in water purification, food, beverage, they can be used also with air, gases, vacuum and liquids compatibility. We recommend to use Tierre Group PE tube in order to have the best quality and the best performances of the used material and to use the locking clips (ALC code) for all the connections.

◦ gli Innesti Rapidi in resina acetalica Tierre Group sono prodotti con materiali atossici approvati FDA e sono in possesso delle certificazioni WRAS, NSF 51 & 61, DMI74. Sono di facile e veloce assemblaggio grazie al colletto progettato con forma ovale e possono essere connessi e disconnessi ripetutamente. Progettati principalmente per l'utilizzo con acqua potabile e nell'industria delle bevande, i raccordi possono essere utilizzati anche con aria, gas, vuoto e liquidi compatibili. Si consiglia l'utilizzo del tubo PE Tierre Group per avere la massima garanzia di qualità e le migliori prestazioni dei materiali utilizzati, nonché l'utilizzo delle clip di bloccaggio (codice ALC) per tutte le connessioni.

◦ los racores automáticos Tierre Group están fabricados con materia prima no tóxica aprobada por la FDA y están certificados con normativas WRAS , NSF 51 & 61, DMI74. Los racores son de fácil ensamblaje gracias al diseño del pulsador en forma de ovalo, pudiendo conectarse y desconectarse de manera repetitiva sin esfuerzo. Ampliamente utilizados en procesos de tratamientos de agua potable y de bebidas, también pueden ser utilizados con aire comprimido, gases, vacío y líquidos compatibles con el racor. Se recomienda el uso de tubo PE Tierre Group para obtener la máxima calidad y los mejores resultados, así como del clip de bloqueo (referencias ALC) para todas las conexiones.

**male connector BSPT thread** > diritto maschio conico BSPT >  
*racor directo macho cónico BSPT*

### AMC



| CODE       | O.D. | thread | weight [g] | ✉  |
|------------|------|--------|------------|----|
| F-AMCI506M | 15   | R3/8"  | 17         | 10 |
| F-AMCI507M | 15   | R1/2"  | 19         | 10 |
| F-AMC2209M | 22   | R3/4"  | 30         | 10 |
| F-AMC2211M | 22   | R1"    | 49,6       | 10 |

**male connector BSPP thread** > diritto maschio cilindrico BSPP >  
*racor directo macho cilíndrico BSPP*

### AMCB



| CODE        | O.D. | thread | weight [g] | ✉  |
|-------------|------|--------|------------|----|
| F-AMCB1507M | 15   | R1/2"  | 17         | 10 |
| F-AMCB1509M | 15   | R3/4"  | 22         | 10 |
| F-AMCB2209M | 22   | R3/4"  | 27         | 10 |

**union connector** > intermedio diritto > *intermedio directo*

### AUC



| CODE       | O.D. | O.D. | weight [g] | ✉  |
|------------|------|------|------------|----|
| F-AUC1515M | 15   | 15   | 15         | 10 |
| F-AUC2215M | 22   | 15   | 31         | 10 |
| F-AUC2222M | 22   | 22   | 39         | 10 |
| F-AUC2828M | 28   | 28   | 70         | 10 |

**union elbow** > intermedio a gomito > *unión en codo*

### AEU



| CODE       | O.D. | O.D. | weight [g] | ✉  |
|------------|------|------|------------|----|
| F-AEUI515M | 15   | 15   | 30         | 10 |
| F-AEU2215M | 22   | 15   | 34         | 10 |
| F-AEU2222M | 22   | 22   | 55         | 10 |
| F-AEU2828M | 28   | 28   | 91         | 10 |

**stem adapter BSPP thread** > adattatore a codolo cilindrico BSPP > *union tee* > intermedio a T > *uniión en T*  
 > adaptador de espiga rosca macho BSPP

### ASAB



| CODE        | O.D. | thread | weight [g] | ✉  |
|-------------|------|--------|------------|----|
| F-ASABI506M | 15   | G3/8"  | 11         | 10 |
| F-ASABI507M | 15   | G1/2"  | 11         | 10 |
| F-ASAB2207M | 22   | G1/2"  | 24         | 10 |
| F-ASAB2209M | 22   | G3/4"  | 24         | 10 |
| F-ASAB2811M | 28   | R1"    | ...        | 1  |

### ATU



| CODE         | O.D. | O.D. | O.D. | weight [g] | ✉  |
|--------------|------|------|------|------------|----|
| F-ATU1515M   | 15   | 15   | 15   | 25,4       | 10 |
| F-ATU2222M   | 22   | 22   | 15   | 59         | 10 |
| F-ATU22222M  | 22   | 22   | 22   | 68         | 10 |
| F-ATU2828M   | 28   | 28   | 15   | 78,5       | 10 |
| F-ATU282828M | 28   | 28   | 28   | 126        | 10 |

**tube elbow union** > gomito codolo > *racor espiga acodado*

### ATEU



| CODE        | tube O.D. | stem O.D. | weight [g] | ✉  |
|-------------|-----------|-----------|------------|----|
| F-ATEU1515M | 15        | 15        | 21         | 10 |
| F-ATEU2222M | 22        | 22        | 38         | 10 |

### ATES



| CODE      | O.D. | weight [g] | ✉  |
|-----------|------|------------|----|
| F-ATES15M | 15   | 12         | 10 |
| F-ATES22M | 22   | 22         | 10 |

air&fluid distibution network <

water fittings <

reducer > riduzione > reductor

ARD



| CODE       | tube O.D. | stem O.D. | weight [g] | □  |
|------------|-----------|-----------|------------|----|
| F-ARD1522M | 15        | 22        | 19         | 10 |
| F-ARD2222M | 22        | 28        | 32         | 10 |

AEL



| CODE       | tube O.D. | stem O.D. | weight [g] | □  |
|------------|-----------|-----------|------------|----|
| F-AEL2215M | 22        | 15        | 20         | 10 |
| F-AEL2822M | 28        | 22        | 44         | 10 |

barb connector > raccordo portagomma > adaptor de espiga

ABBC



| CODE        | tube O.D. | tube I.D. | weight [g] | □  |
|-------------|-----------|-----------|------------|----|
| F-ABBC1507M | 15        | 1/2"      | 13         | 10 |
| F-ABBC1510M | 15        | 10 mm     | 13         | 10 |
| F-ABBC2207M | 22        | 1/2"      | 25         | 10 |
| F-ABBC2209M | 22        | 3/4"      | 26         | 10 |

locking clip > clip di bloccaggio > clip de bloqueo

ALC



| CODE     | tube O.D. | color | weight [g] | □  |
|----------|-----------|-------|------------|----|
| F-ALC15M | 15        | ● ●   | 0,8        | 10 |
| F-ALC22M | 22        | ●     | 0,9        | 10 |
| F-ALC28M | 28        | ●     | 3          | 10 |

# > Valves for water



[technical specifications](#) > [specifiche tecniche](#) > [especificaciones técnicas](#)

---

[materials](#) > [materiali](#) > [materiales](#)

9320 :

- Body: stainless steel AISI 316
- Seat: PTFE 15% glassfiber
- Ball: stainless steel AISI 316
- Stem: stainless steel AISI 316
- Stem seat: PTFE

9320:

- Corpo: acciaio Inox AISI 316
- Seggio: PTFE caricato vetro 15%
- Sfera: acciaio Inox AISI 316
- Asta: acciaio Inox AISI 316
- Guarnizione asta: PTFE

9320:

- Cuerpo: acero inoxidable AISI 316
- Asiento: PTFE fibra de vidrio 15%
- Bolas: acero inoxidable AISI 316
- Eje: acero inoxidable AISI 316
- Guarnicion eje: PTFE

9170 & 9180 :

- Body: stainless steel AISI 316
- Gasket seat: PTFE
- Lever: aluminum

9170 & 9180:

- Corpo: acciaio Inox AISI 316
- Guarnizione sede: PTFE
- Leva: alluminio

9170 & 9180:

- Cuerpo: acero inoxidable AISI 316
- Guarnicion asiento: PTFE
- Maneta: aluminio

---

AHUC:

- Body: acetal resin
- O'ring: NBR

AHUC:

- Corpo: resina acetalica
- O'ring: NBR

AHUC:

- Cuerpo: resina acetalica
- O'ring: NBR

---

[working pressure](#) > [pressione d'esercizio](#) > [presión de trabajo](#)

9320 :

- 85 Bar

9320:

- 85 Bar

9320:

- 85 Bar

---

9170 & 9180 :

- 63 Bar

9170 & 9180:

- 63 Bar

9170 & 9180:

- 63 Bar

---

AHUC:

- 10 Bar at 20°C
- 7 Bar at 65°C

AHUC:

- 10 Bar a 20°C
- 7 Bar a 65°C

AHUC:

- 10 Bar a 20°C
- 7 Bar a 65°C



---

**working temperature > temperatura d'esercizio > temperatura de trabajo**

**9320 :**

- From -40°C to 220°C

**9320:**

- Da -40°C a 220°C

**9320:**

- De -40°C a 220°C

---

**9170 & 9180 :**

- From -25°C to 180°C

**9170 & 9180:**

- Da -25°C a 180°C

**9170 & 9180:**

- De -25°C a 180°C

---

**AHUC :**

- from -20°C to +65°C with air
- from +1°C to +65°C with liquid

**AHUC:**

- Da -20°C a +65°C con aria
- Da +1°C a +65°C con liquidi

**AHUC:**

- De -20°C a +65°C con aire
- De +1°C a +65°C con liquido

---

**applications > applicazioni > aplicaciones**

**9320 :**

- Industrial, chemical and food plants

**9320:**

- Impianti industriali, chimici ed alimentari

**9320:**

- Industria química y alimentaria, aplicaciones industriales

---

**9170 & 9180 :**

- Industrial, chemical and food plants

**9170 & 9180:**

- Impianti industriali, chimici ed alimentari

**9170 & 9180:**

- Industria química y alimentaria, aplicaciones industriales

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**AHUC :**

- Industrial, chemical and food plants

**AHUC:**

- Impianti industriali, chimici ed alimentari

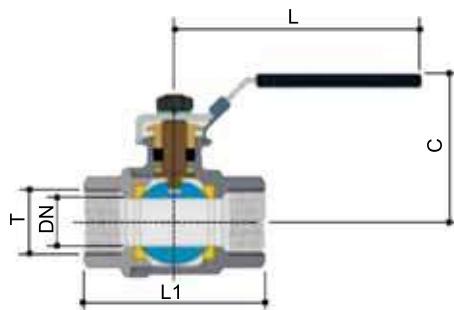
**AHUC:**

- Industria química y alimentaria, aplicaciones industriales

**full bore ball valve INOX AISI 316, threaded ends BSPP F/F - blue lever** > valvola a sfera a passaggio totale INOX AISI 316, attacchi filettati BSPP F/F - leva blu > válvula de bola paso total en acero inoxidable AISI 316, roscas hembras BSPP - maneta azul

## 9320

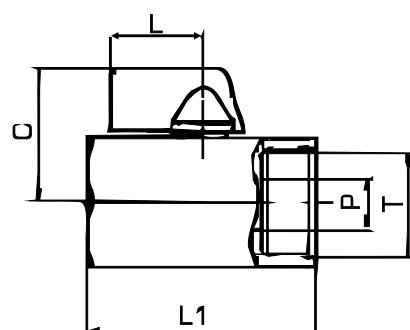
| CODE       | T     | DN   | L   | L1   | C  | weight (g) | □ |
|------------|-------|------|-----|------|----|------------|---|
| F-9320TR14 | G1/4" | 11,5 | 100 | 49   | 48 | 230        | I |
| F-9320TR38 | G3/8" | 12,5 | 100 | 49   | 48 | 230        | I |
| F-9320TR12 | G1/2" | 15   | 100 | 55   | 52 | 260        | I |
| F-9320TR34 | G3/4" | 20   | 115 | 66   | 57 | 480        | I |
| F-9320TR1  | GI"   | 25   | 150 | 78,5 | 75 | 650        | I |



**mini ball valve F/F INOX AISI 316** > valvola a sfera mini F/F INOX AISI 316 > miniválvula de esfera en latón rosca hembra

## 9170

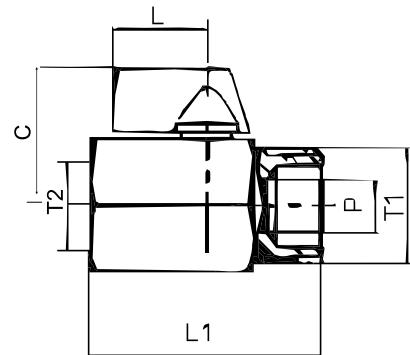
| CODE       | T     | DN | P    | L    | L1 | C    | weight (g) | □ |
|------------|-------|----|------|------|----|------|------------|---|
| F-9170TR14 | G1/4" | 6  | 7    | 22,8 | 42 | 26,5 | 83         | I |
| F-9170TR38 | G3/8" | 8  | 7    | 22,8 | 42 | 26,5 | 82         | I |
| F-9170TR12 | G1/2" | 10 | 9,2  | 22,8 | 46 | 28,3 | 116        | I |
| F-9170TR34 | G3/4" | 12 | 12,5 | 22,8 | 54 | 31,5 | 193        | I |
| F-9170TR1  | GI"   | 15 | 15   | 22,8 | 65 | 34   | 235        | I |



mini ball valve M/F INOX AISI 316 > valvola a sfera mini M/F INOX AISI 316 > miniválvula de esfera en latón rosca hembra / macho

## 9180

| CODE       | T1    | T2    | DN | P    | L    | L1 | C    | weight [g] |   |
|------------|-------|-------|----|------|------|----|------|------------|---|
| F-9180TR14 | R1/4" | G1/4" | 6  | 7    | 22,8 | 42 | 26,5 | 104        | I |
| F-9180TR38 | R3/8" | G3/8" | 8  | 7    | 22,8 | 42 | 26,5 | 92         | I |
| F-9180TR12 | R1/2" | G1/2" | 10 | 9,2  | 22,8 | 46 | 28,3 | 125        | I |
| F-9180TR34 | R3/4" | G3/4" | 12 | 12,5 | 22,8 | 54 | 31,5 | 211        | I |
| F-9180TR1  | R1"   | G1"   | 15 | 15   | 22,8 | 65 | 34   | 259        | I |



hand valve union connector > valvola intermedia > válvula intermedia para tubo

## AHUC

| CODE        | 0.0. | 0.0. | weight [g] |    |
|-------------|------|------|------------|----|
| F-AHUC05ISM | 15   | 15   | 63         | I0 |
| F-AHUC222M  | 22   | 22   | 125        | I0 |



# > Eurostandard quick couplings F-Line®

[technical specifications](#) > [specifiche tecniche](#) > [especificaciones técnicas](#)

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[materials](#) > [materiali](#) > [materiales](#)

**Body, adapter, slide and valve:**

- stainless steel AISI 316L

Corpo, adattatore, corsoio e valvola:

- acciaio inox AISI 316L

Cuerpo, adaptador, manguito y válvula:

- acero inox AISI 316L

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O'ring:

- FKM

O'ring:

- FKM

Juntas:

- FKM

---

Balls:

- stainless steel AISI 420

Sfere:

- acciaio inox AISI 420

Bolas:

- acero inox AISI 420

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Spring:

- stainless steel AISI 302

Molla:

- Acciaio inox AISI 302

Muelles:

- acero inox AISI 302

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Connections:

- stainless steel AISI 316L

Innesto:

- acciaio inox AISI 316L

Acoplamiento:

- acero inox AISI 316L

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[working pressure](#) > [pressione d'esercizio](#) > [presión de trabajo](#)

- 12 Bar

- 12 Bar

- 12 Bar

- 35 Bar max working pressure

- 35 Bar max pressione d'esercizio

- 35 Bar máx presión de trabajo

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[working temperature](#) > [temperatura d'esercizio](#) > [temperatura de trabajo](#)

- from -20°C to 205°C

- da -20°C a 205°C

- de -20°C a 205°C



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**thread > filettature > rosca**

- parallel BSPP from GI/4" to GI/2"
- taper BSPT from RI/4" to RI/2"
- cilindrica BSPP da GI/4" a GI/2"
- conica BSPT da RI/4" a RI/2"
- cilíndricas BSPP de GI/4" a GI/2"
- cónica BSPT de RI/4" a RI/2"

---

**DN > DN > DN**

- 7,6 mm
- 7,6 mm
- 7,6 mm

---

**applications > applicazioni > aplicaciones**

◦ they are indicated, especially for applications with pneumatic tools, compressed air equipment and industrial machineries. The version in AISI 316L is indicated in oxidant and corrosive environments and especially in sectors as food, chemical, medical, analytical laboratories, instrumentation and desalination of water. Easy handling, connection - disconnection with one hand.  
Use the original F-Line connections series AEU-75 in order to guarantee a correct working.

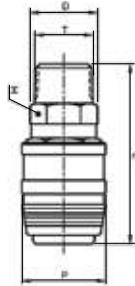
◦ indicato soprattutto per applicazioni con strumenti pneumatici, impianti ad aria compressa e macchinari industriali. La versione in AISI 316L è indicata in ambienti ossidanti e corrosivi e in modo particolare per i settori alimentare, chimico, medicale, laboratori di analisi, strumentazione e per dissalatori di acqua potabile. Facile maneggevolezza, connessione-disconnessione con una sola mano.  
Utilizzare gli accoppiamenti originali F-Line della serie AEU-75 per garantire il corretto funzionamento.

◦ especialmente indicado para aplicaciones en ambientes oxidantes y corrosivos y aplicaciones en el sector alimentario, químico, medicinal, laboratorios, instrumentación y desalinización de agua. Fácil conexión y desconexión con una mano. Utilice los acoplamientos originales F-Line series AEU-75 para garantizar un correcto funcionamiento.

male quick coupler > giunto maschio > enchufe rápido macho

### EU-75N-M

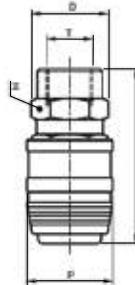
| CODE               | T     | P    | L    | D    | H  | □ |
|--------------------|-------|------|------|------|----|---|
| F-EU-75N-MI/4-316V | R1/4" | 24,4 | 51,7 | 19   | 17 | I |
| F-EU-75N-M3/8-316V | R3/8" | 24,4 | 52,7 | 19   | 17 | I |
| F-EU-75N-MI/2-316V | R1/2" | 24,4 | 57,2 | 24,6 | 27 | I |



female quick coupler > giunto femmina > enchufe rápido hembra

### EU-75N-H

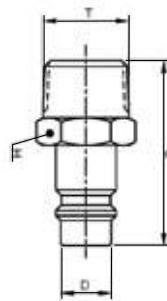
| CODE               | T     | P    | L    | D    | H  | □ |
|--------------------|-------|------|------|------|----|---|
| F-EU-75N-HI/4-316V | G1/4" | 24,4 | 49,7 | 21,5 | 19 | I |
| F-EU-75N-H3/8-316V | G3/8" | 24,4 | 51,2 | 24,6 | 22 | I |
| F-EU-75N-HI/2-316V | G1/2" | 24,4 | 55,4 | 27,5 | 25 | I |



male connection > innesto maschio > acoplamiento macho

### AEU-75M

| CODE             | T     | D  | L    | H  | □ |
|------------------|-------|----|------|----|---|
| F-AEU-75M-316    | R1/4" | 10 | 36,5 | 14 | I |
| F-AEU-75M38-316  | R3/8" | 10 | 37   | 17 | I |
| F-AEU-75M1/2-316 | R1/2" | 10 | 42   | 22 | I |



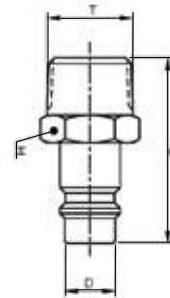
## Eurostandard quick couplings <

male connection > innesto maschio > acoplamiento macho

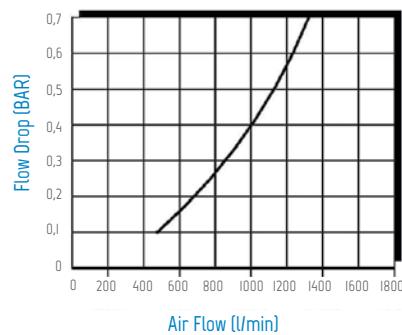
AEU-75M



| CODE            | T     | D  | L    | H  |   |
|-----------------|-------|----|------|----|---|
| F-AEU-75M-3I6   | R1/4" | 10 | 36,5 | 14 | I |
| F-AEU-75M38-3I6 | R3/8" | 10 | 37   | 17 | I |
| F-AEU-75M12-3I6 | R1/2" | 10 | 42   | 22 | I |



drop flow general > perdite di carico generali > pérdidas de carga general



1125 l/min

The chart has been created considering  
a pressure of 6 Bar.

Il grafico è stato realizzato tenendo conto di  
una pressione d'esercizio pari a 6 Bar.

El gráfico fue realizado considerando  
una presión de trabajo de 6 Bar.

# > CD quick couplings



[technical specifications](#) > [specifiche tecniche](#) > [especificaciones técnicas](#)

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[materials](#) > [materiali](#) > [materiales](#)

**Body, adapter, slide, mechanical seal and valve:**

- stainless steel AISI 316L

Corpo, adattatore, corsoio, tenuta meccanica e valvola:  
◦ acciaio inox AISI 316L

Cuerpo, adaptador, manguito, cierre mecánico y válvula:  
◦ acero inox AISI 316L

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**O'ring:**

- NBR - Viton - EPDM - Silicon

O'ring:

- NBR - Viton - EPDM - Silicone

Juntas:

- NBR - Viton - EPDM - VMQ

---

**Washer and clip:**

- stainless steel AISI 304

Rondella and clip:

- acciaio inox AISI 304

Arandela y clip:

- acero inox AISI 304

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**Spring:**

- stainless steel AISI 302

Molla:

- Acciaio inox AISI 302

Muelles:

- acero inox AISI 302

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**Connections:**

- stainless steel AISI 316L

Innesto:

- acciaio inox AISI 316L

Acoplamiento:

- acero inox AISI 316L

---

[working pressure](#) > [pressione d'esercizio](#) > [presión de trabajo](#)

- 12 Bar

- 12 Bar

- 12 Bar

- 35 Bar max working pressure

- 35 Bar max pressione d'esercizio

- 35 Bar máx presión de trabajo

---

[working temperature](#) > [temperatura d'esercizio](#) > [temperatura de trabajo](#)

- from -10°C to 95°C with NBR seal
- from -15°C to 200°C with Viton seal
- from -40°C to 95°C with EPDM seal
- from -60°C to 200°C with Silicon seal

- da -10°C a 95°C con NBR
- da -15°C a 200°C con Viton
- da -40°C a 95°C con EPDM
- da -60°C a 200°C con Silicone

- de -10°C a 95°C con NBR
- de -15°C a 200°C con Viton
- de -40°C a 95°C con EPDM
- de -60°C a 200°C con Silicone



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**thread > filettature > rosca**

- parallel BSPP from G3/4" to GI"
- taper BSPT from R3/4" to RI"
- cilindrica BSPP da G3/4" a GI"
- conica BSPT da R3/4" a RI"
- cilíndricas BSPP de G3/4" a GI"
- cónica BSPT de R3/4" a RI"

---

**DN > DN > DN**

- 1/4 mm
- 1/4 mm
- 1/4 mm

---

**applications > applicazioni > aplicaciones**

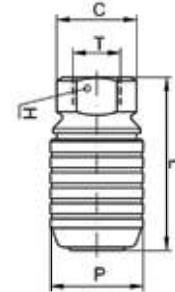
- pneumatics in not corrosive applications and in contact with fluids like air, water, vacuum, gas, mineral and synthetic acids
- pneumatica in ambienti non corrosivi e a contatto con fluidi tipo aria, acqua, gas, vuoto, gas, minerali e sintetici
- neumática en ambientes corrosivos y en contacto con fluidos como el aire, agua, gas, vacío, ácidos minerales y sintéticos

female quick coupler > giunto femmina > enchufe rápido hembra

CD



| CODE           | T     | P  | L    | C  | H  | □ |
|----------------|-------|----|------|----|----|---|
| F-CD-I50-X3I6  | G3/4" | 44 | 85,7 | 40 | 34 | I |
| F-CD-I50-X3I6P | GI"   | 44 | 92,7 | 42 | 38 | I |



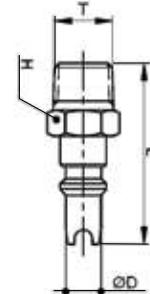
P: free passage > P: passaggio libero > P: paso libre

male connection > innesto maschio > acoplamiento macho

ACD-M



| CODE             | T     | D  | L    | H  | □ |
|------------------|-------|----|------|----|---|
| F-ACD-I50M-X3I6  | R3/4" | 19 | 74,7 | 27 | I |
| F-ACD-I50M-IX3I6 | RI"   | 19 | 79,7 | 36 | I |

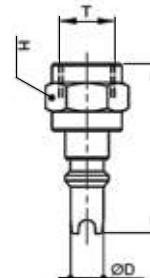


female connection > innesto femmina > acoplamiento hembra

ACD-H

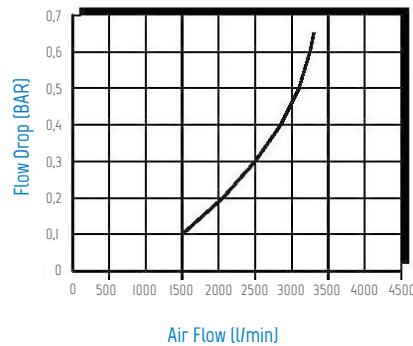


| CODE                | T     | D  | L    | H  | □ |
|---------------------|-------|----|------|----|---|
| F-ACD-I50H-X-3I6    | G3/4" | 19 | 76,7 | 32 | I |
| F-ACD-I50H-IX-3I6-P | GI"   | 19 | 78,7 | 41 | I |



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drop flow general > perdite di carico generali > pérdidas de carga general



3100 l/min

The chart has been created considering  
a pressure of 6 Bar.

Il grafico è stato realizzato tenendo conto di  
una pressione d'esercizio pari a 6 Bar.

El gráfico fue realizado considerando  
una presión de trabajo de 6 Bar.

# > General Sales Terms



## 1.0 Definitions

- 1.1 The herewith enclosed General Terms of Sale are worth for all supplyings of goods delivered by Tierre Group s.r.l. having its head office in Cormano (Milano), Italy , Via dell'Industria 18.
- 1.2 Eventual specific conditions and/or changes to the following general terms of sale will be valid only if there will be a written agreement between Tierre Group and the Purchaser.

## 2.0 Order

- 2.1 All orders, both verbal and written, are always approved by Tierre Group s.r.l. by sending the order confirmation to the Purchaser. The dispatch of the goods can also be partial.
- 2.2 If not clearly described in the order confirmation, all descriptions, pictures, drawings and technical details referred to the items of our catalogues are indicative and can be changed or completed without any notice.
- 2.3 The Purchaser engages himself not to reveal to others technical and commercial information, unless for reasons about the use of the purchased items and not to use, reproduce and deliver any drawings or projects relative to the supply which are Tierre Group's exclusive property without written Supplier's authorization.
- 2.4 Tierre Group declines all responsibilities for goods which don't suit to the Customer's order, except for orders having clear and detailed information.
- 2.5 The Minimum Amount for an order is of 100,00 Euro.
- 2.6 The Minimum Quantity changes according to the type of the products and it can be the standard box or the vinyl plastic bag of 10 pcs.
- 2.7 The packing is free.
- 2.8 The Return of the goods is always ddu Tierre Group.
- 2.9 Tierre Group can change prices if the Customer, after having sent a order, decides to change quantities or delivery terms.

## 3.0 Transport and Shipment

- 3.1 Transport costs are at consignee's expense or in free port with charge in the invoice.
- 3.2 The goods are always free on board and the Purchaser is obliged to collect them with a freight courier or directly.
- 3.3 As not written, Tierre Group is not responsible for all the risks of the goods delivered to the freight courier or directly to the Customer
- 3.4 In case of uncollected goods all damages and losses are at Purchaser's expense.
- 3.5 If the Customer, for any kind of reasons, doesn't collect or doesn't accept the ordered goods within 60 days from the communication that the goods are ready for the shipment, Tierre Group will keep the goods in the warehouse charging the eventual costs for the deposit to the Customer. After 60 days the stored goods will be however paid as they would have been delivered.
- 3.6 The delivery times written in the order confirmation are always indicative even if Tierre Group will try to do the best for respecting them.

## 4.0 Payments

- 4.1 The binding payment conditions to consider as valid are indicated in the order confirmation and in the invoice. In case of delay in the payments, the purchaser will have to pay some interests which are calculated considering the medium bank rate according to D.Lgs. 231/02. In case of a continuative delay in the payments Tierre Group can decide to stop the supplies.



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## 5.0 Returned goods or complaints

- 5.1 Tierre Group's products have a warranty of 12 months from the date of their delivery
- 5.2 Eventual defects, shortages and every kind of complaints have to be communicated to Tierre Group within 8 days from the receipt of the goods. Tierre Group reserves the right to check the goods object of the above mentioned complaints and the Customer will have to preserve the goods until they will be not examined or until he will not receive other instructions. Tierre Group guarantees the replacement of all the faulty products free of charge. Except for the obligation to replace products, Tierre Group is not responsible for consequently direct damages, lack of benefits or damages to a third person or other kinds of damages.
- 5.3 The warranty ends if the products are misused or installed not into the correct way or have received a bad storage or at least repaired and modified without any Tierre Group's previous authorization.
- 5.4 We recommend you to keep the original products packaging in order to guarantee the validity of the warranty
- 5.5 Tierre Group doesn't accept returned goods without any previous authorization and the goods will have to be returned in free port or in another port agreed and approved by Tierre Group.

## 6.0 Autonomy of the contractual clauses and ties

- 6.1 The invalidity of a clause of this contract doesn't compromise its total validity or efficacy.
- 6.2 Every change, addition or cancel of contractual clauses is valid only if written, approved and authorized by both the two parts.

## 7.0 Arbitration

- 7.1 Eventual disputes relative to terms and contractual conditions shall be submitted to the Italian Arbitration Board in Milan.

