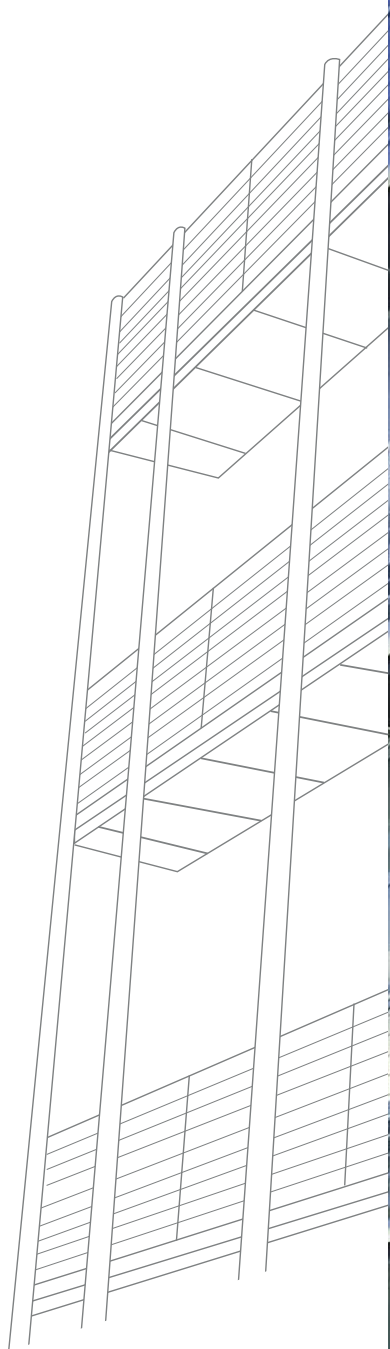


25  
anniversary









 **TierreGroup**®

 **TierreFittings**®

 **F-Line.PRO**

 **NET.Fit**®

 **INOX.Fit**®





# NET.Fit<sup>®</sup>

## PLUS

The union connectors have an internal profile design that allows them **NOT TO BE AFFECTED BY THE INTERNAL DIAMETER OF THE DUCT GUARANTEEING AN UN-OBSTRUCTED PASSAGE OF THE BLOWN FIBRES** without any obstacles

**METAL CARTRIDGE** (corrosion resistant) inserted into the plastic body to substantially improve resistance to compression & impact forces in accordance with IEC 61386-24

**FULLY TRANSPARENT** (clear) body for ease of visual inspection to ensure the tube is inserted correctly

**SAFETY PRE-INSTALLED LOCKING CLIP SYSTEM** to prevent microducts being accidentally disconnected

**EASY CONNECTION & DISCONNECTION** of the duct thanks to the intelligent gripping system

**ANTI-SHOCK COVER** available in order to offer additional protection in more aggressive installation locations, the special bespoke design still allows for visual inspection of the correct microduct insertion, the cover also includes the safety clip locking function

**TESTED AGAINST RED SPIRIT**



*If It's Not Fiber, It's Not Broadband*



## PRODUCTS

Union connectors



p. 7 / **FXUC**

End plugs



p. 7 / **FXPF**

Reduced union connectors



p. 8 / **FXG**

## ACCESSORIES

Safety locking clips



p. 9 / **FXLC**

Anti-shock covers



p. 9 / **FXASC**

Metal tube cutter



p. 9 / **PZ-G**

Spare blade for  
PZ-G



p. 9 / **LM-G**

Plastic tube cutter



p. 9 / **TT16**





NET.Fit fittings and accessories have been designed by Tierre Group in order to be used for FTTx applications. NET.Fit is manufactured in compliance with the EN 50411-2-8, it is the efficient & cost saving solution for blowing optical fibre cables.

**NET.Fit products have been tested in order to simulate a 20-years lifetime.**



-20 °C ÷ +50 °C



**Working Pressure:**

20 Bar

**Short term blowing pressure (10''):**

25 Bar

**Burst pressure (all diameters):**

>45 Bar



Air



**Body:** Transparent HP Polymer

**Cartridge:** Nickel Plated Brass

**Collet:** Techno Polymer

**Seal:** NBR

**Lock Claw:** Stainless Steel

**Back Ring:** Techno Polymer

**Safety Locking Clip:** Techno Polymer

**Anti Shock Cover:**

Semi-transparent Techno Polymer

**EN 50411-2-8:** Microduct connectors - specifications

EN 61300-2-1: Vibration (sinusoidal)

EN 61300-2-4: Microduct Retention

EN 61300-2-37: Microduct Bending

EN 61300-2-5: Torsion / Twist

EN 61300-2-10: Crush Resistance

EN 60794-1-2:2003, Method E4: Impact

EN 61300-2-33: Re-entries

EN 61300-2-22: Change of Temperature (cycling)



EN 61300-2-23:1997, Method 2:

Water Immersion

EN 61300-2-26: Salt Mist

EN 61300-2-34: Chemical Resistance

EN 50411-2-8, Annex C: High Pressure Resistance (safety)

EN 50411-2-8, Annex D: Installation Test

EN 50411-2-8, Annex E: Insertion Force

**EN 60529:** IP 68

**EN 61386-22:** Glow wire test at 750°C

**EN 61386-24:** Conduit systems buried underground

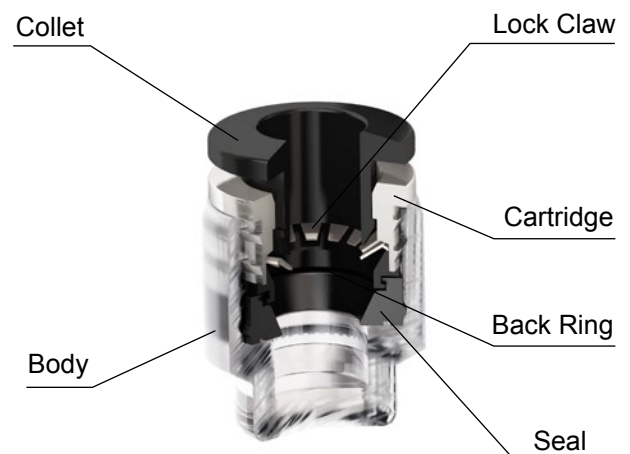
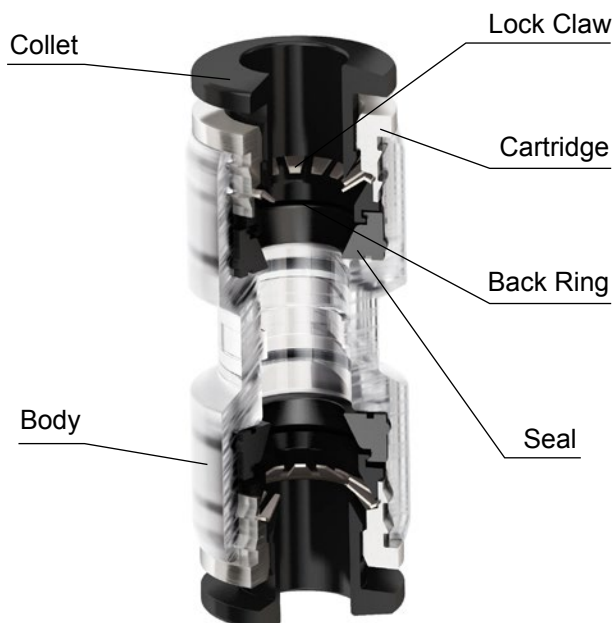


Products in compliance with the regulation EC 1907/2006



Products in compliance with the directive EU 2015/863

## CONSTRUCTION DETAILS





## FXUC

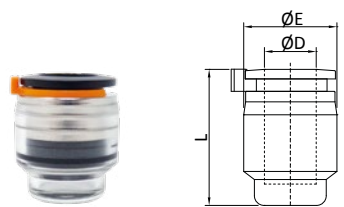
## Union connectors



CODE	ØD (mm)	ØA (mm)	ØE (mm)	L (mm)	Q.TY
FXUC03-LC	3	2,5	11,0	32,6	100
FXUC04-LC	4	3,5	11,0	32,6	100
FXUC05-LC	5	4,4	13,0	35,2	100
FXUC06-LC	6	5,3	13,0	35,2	100
FXUC07-LC	7	6,1	14,6	39,1	100
FXUC08-LC	8	7,1	14,6	39,1	100
FXUC10-LC	10	9,3	19,0	48,4	50
FXUC12-LC	12	11,0	21,5	49,2	25
FXUC14-LC	14	13,0	23,0	49,4	25
FXUC15-LC	15	14,0	26,0	51,0	25
FXUC16-LC	16	14,0	26,0	51,0	25
FXUC18-LC	18	17,0	29,0	57,4	15
FXUC20-LC	20	19,0	31,0	58,4	15

## FXPF

## End plugs

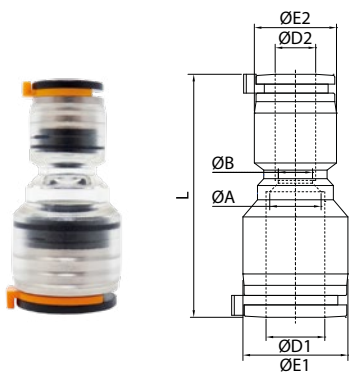


CODE	ØD (mm)	ØE (mm)	L (mm)	Q.TY
FXPF04-LC	4	11,0	17,5	200
FXPF05-LC	5	13,0	17,5	200
FXPF06-LC	6	13,0	17,5	200
FXPF07-LC	7	14,6	20,8	100
FXPF08-LC	8	14,6	20,8	100
FXPF10-LC	10	19,0	25,3	50
FXPF12-LC	12	21,5	25,6	50
FXPF14-LC	14	23,0	25,7	25
FXPF15-LC	15	26,0	27,0	25
FXPF16-LC	16	26,0	27,0	25
FXPF18-LC	18	29,0	30,2	25
FXPF20-LC	20	31,0	30,7	25



FXG

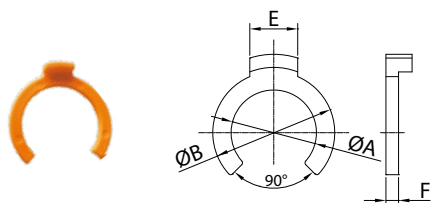
Reduced union connectors



CODE	ØD1 (mm)	ØD2 (mm)	ØE1 (mm)	ØE2 (mm)	ØA (mm)	ØB (mm)	L (mm)	Q.TY
FXG0503-LC	5	3	13,5	11,5	4,3	2,5	33,6	100
FXG0504-LC	5	4	13,5	11,5	4,3	2,5	33,6	100
FXG0604-LC	6	4	13,5	11,5	5,3	2,5	33,6	100
FXG0703-LC	7	3	15,0	11,5	6	2,5	36,3	100
FXG0704-LC	7	4	15,0	11,5	6	2,5	36,3	100
FXG0705-LC	7	5	15,0	13,5	6	4,3	36,5	100
FXG0805-LC	8	5	15,0	13,5	7	4,3	36,5	100
FXG0807-LC	8	7	15,0	15,0	6,5	6,5	39,3	100
FXG1005-LC	10	5	19,0	13,5	9	4,3	43,1	50
FXG1007-LC	10	7	19,0	15,0	9	6	42,6	50
FXG1008-LC	10	8	19,0	15,0	9	6	42,6	50
FXG1207-LC	12	7	21,5	15,0	11	6	44,3	50
FXG1208-LC	12	8	21,5	15,0	11	7	44,3	50
FXG1210-LC	12	10	21,5	19,0	11	9	47,2	50
FXG1407-LC	14	7	23,5	15,0	12	6	44,6	25
FXG1410-LC	14	10	23,5	19,0	12	9	47,7	25
FXG1412-LC	14	12	23,5	21,5	12	11	48,3	25
FXG1612-LC	16	12	26,5	21,5	14	11	50,1	25
FXG1614-LC	16	14	26,5	23,5	14	12	50,6	25

## FXLC

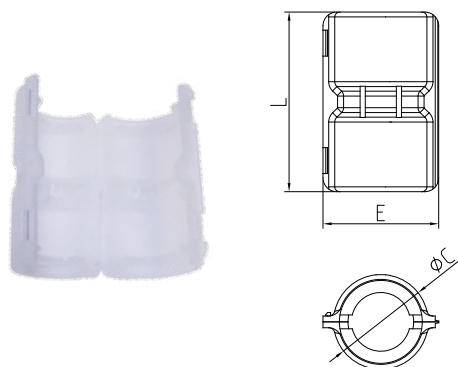
## Safety locking clips



CODE	ØA (mm)	ØB (mm)	E (mm)	F (mm)	Q.TY
FXLC03/04	5,6	10,0	5,5	1,0	2000
FXLC05	6,9	12,0	5,5	0,8	2000
FXLC06	7,9	12,0	5,5	0,8	2000
FXLC07	8,8	14,0	5,5	1,4	2000
FXLC08	9,8	14,0	5,5	1,45	2000
FXLC10	12,0	17,5	6,0	1,8	1000
FXLC12	14,9	20,0	6,0	1,5	1000
FXLC14	16,3	22,0	6,0	1,95	500
FXLC15/16	18,3	24,5	6,0	2,0	500
FXLC18	21,3	27,5	7,0	1,8	500
FXLC20	22,4	29,5	7,0	2,3	500

## FXASC

## Anti-shock covers



CODE	L (mm)	E (mm)	ØC (mm)	Q.TY
FXASC07/08	41,5	25,1	19,0	100
FXASC10	50,0	29,5	23,4	100
FXASC12	52,0	32,0	25,9	100
FXASC14	52,0	33,5	27,4	100
FXASC15/16	53,5	36,5	30,4	100
FXASC20	61,0	41,9	35,6	50

## PZ-G

## Metal tube cutter



CODE	MAX Ø (mm)	BLADE	Q.TY
PZ-G	28	Steel	1

## LM-G

## Spare blade for PZ-G



CODE	Q.TY
LM-G	1

## TT16

## Plastic tube cutter

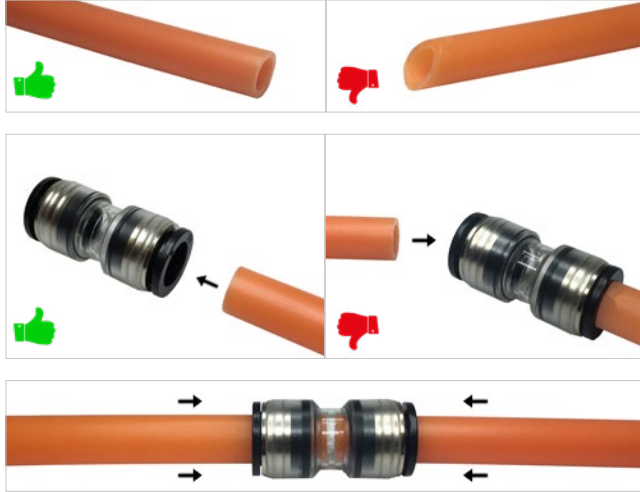


CODE	MAX Ø (mm)	Q.TY
TT16	16	1

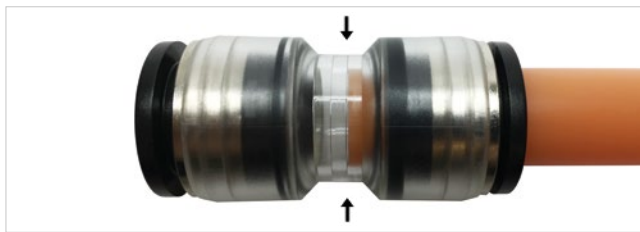


## ASSEMBLY INSTRUCTIONS

We recommend the installer to read and follow all the instructions, precautions and warnings contained in this document before using the products in pressurized systems. Failure to follow all instructions, precautions and warnings may result in bodily harm or property damage. Tierre Group disclaims any responsibility in the case of damage for mis-use of the products.



Make sure that the Microduct external size and the push-in system size of the Connector are the same. Check the external diameter of the Microduct (maximum allowed tolerance  $\pm 0,1\text{mm}$ ). The part of the Microduct that has to be inserted into the Connector must be round. The Microduct must be cut square ( $90^\circ$  angle) for the part that has to be inserted into the Connector, and using the correct tube cutter (PZ-G or TT-16). When necessary, deburr and break off sharp edges of the Microduct end to be inserted into the Connector using the correct tool. Make sure that the Microduct used is clean and does not contain any scratches, cracks, cuts or deformities on its surface. Avoid the inlet of foreign material into the Connector and/or Microduct before and during the installation. Always insert the Microduct correctly aligned with the Connector, to ensure the correct assembly.



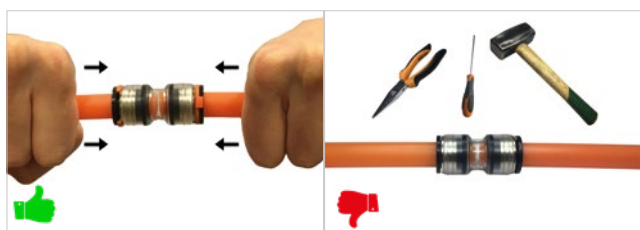
Make sure that the Microduct is correctly and fully inserted. The transparent body of the Connector allows a visual inspection of the correct and full insertion of the Microduct. The insertion of the Microduct into the Connector requires a moderate force. The Microduct and the Connector seal should not be scratched or damaged during the insertion, otherwise there may be leaks or further mis-functioning. Please connect the Microduct by hand, without using any kind of tool.



To make sure that the Microduct is properly connected to the Connector, please pull it once slightly, without releasing the collet.



If the Connector is not pre-fitted with the locking clip or if it has been removed, please insert the proper locking clip of the correct dimension after connecting the Microduct. The insertion of the locking clip between the Connector main body and the collet avoids any possible Microduct accidental disconnection.



All the connection and disconnection operations, including the locking clip installation and removal, have to be performed manually without the use of any kind of tools to prevent damage.





In order to disconnect the Microduct from the Connector, make sure that the pressure has been completely eliminated from the system before any operation.

Remove the locking clip first, then push the collet in the direction of the body of the Connector and pull the Microduct keeping the collet pushed against the Connector body in order to disconnect the Microduct.

To avoid any possible problem during the blowing process, the Connectors have to be installed in straight sections. The Connectors must not be installed in a microduct that is on a tight bend radius.

NET.Fit Connectors can be reused providing that they are not damaged and correctly working. It is possible to reuse them, but only in case of maintenance. The reuse must be verified and the correct functioning of the whole system has to be carefully checked by the operator. In the case of reuse of a Microduct, the part previously inserted into the Connector has to be cut back and the whole line has to be re-verified. It is necessary to follow all the instructions as a precaution, in the same way as the first insertion of the Microduct.

In case of use with lubricants, it is responsibility of the user/customer to previously check the chemical compatibility of the fluid with the construction materials of the Connector. Please, contact our technical department if you would like to receive information regarding suggested lubricants.

Do not disassemble or modify the individual products as this may cause product malfunctions, leaks or failure. In any case the tampering, modification or dismantling of the products invalidates the guarantee.

Do not over-stress the products by rotation, twist, bending, shock, fatigue or other excessive forces. This may damage the fittings and cause malfunctions, leaks or failure. The performance limits of the Connectors are detailed in the NET.Fit catalogues and must be respected during the installation. Do not use the products where ambient temperature and/or fluid temperature and pressure may exceed the limits indicated in our catalogue.

Never press collets towards the body unless you need to separate the Microducts from the Connector in an unpressurized line. Please, follow the instructions above.

Tierre Group reserves the right to modify the products from time to time when required by quality improvements and by market requirements. The actual product may differ from the pictures and drawings shown in the catalogues.

We recommend to only use Net.Fit accessories when assembling Connectors. Using non recommended products could invalidate the guarantee. The customer is responsible for checking the performance of the products after the installation.

While connecting the Microduct, please make sure that it is correctly inserted into the Connector seat. Please, note that the Microduct may be gripped even if it is not completely inserted into the seat. A Microduct that is not fully inserted may cause failures and leakages. In this case push the Microduct further into the Connector in order to be certain that it is completely inserted and check visually to ensure it is in the correct position.

It is responsibility of the user to keep the correct traceability of the product. The production code of the items is clearly indicated on the packaging. In case of claim, the correct production code must be communicated to Tierre Group. The failure to communicate the production code will invalidate the guarantee.





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 Production: Via Marco Biagi 1 – 25045 Castegnato (BS) – Italy  
 C.F. e P.IVA IT 12437570158 – Capital €120.000,00  
 REA MI-1558390



Phone. +39 02 663088.1 – Fax +39 02 66304172  
 www.tierregroup.com – info@tierregroup.com

## COMPLIANCE DECLARATION

Tierre Group S.p.a. hereby declares that the following items:



In the following series:

Union Connectors FXUC  
 End Plugs FXPF  
 Reduced Union Connectors FXG

**ARE IN COMPLIANCE WITH**

### EN 50411-2-8

Fibre organisers and closures to be used  
 in optical fibre communication systems -  
 Product specifications -

Part 2-8: Microduct connectors, for air blown optical fibres, Type 1

The items have been tested accordingly to the following standards:

EN 61300-2-1: Vibration (sinusoidal)  
 EN 61300-2-4: Microduct Retention  
 EN 61300-2-37: Microduct Bending  
 EN 61300-2-5: Torsion/Twist  
 EN 61300-2-10: Crush Resistance  
 EN 60794-1-2:2003, Method E4: Impact  
 EN 61300-2-33: Re.entries  
 EN 61300-2-22: Change of Temperature (Cycling)  
 EN 61300-2-23:1997, Method 2: Water Immersion  
 EN 61300-2-26: Salt Mist  
 EN 61300-2-34: Chemical Resistance  
 EN 50411-2-8, Annex C: High Pressure Resistance (safety)  
 EN 50411-2-8, Annex D: Installation Test  
 EN 50411-2-8, Annex E: Insertion Force

Cormano, 27th July 2021



TIERRE GROUP S.p.a.

Dott. Marco Regis



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## DEGREE OF PROTECTION DECLARATION

Tierre Group S.p.a. hereby declares that the following items:



In the following series:

Union Connectors FXUC  
 End Plugs FXPF  
 Reduced Union Connectors FXG

Have been tested accordingly to the following standard:

**EN 60529**

Degrees of protection provided by enclosures (IP Code)

And PASSED all the tests in order to obtain the following degree of protection:

**IP 68**

Cormano, 30th July 2021



TIERRE GROUP S.p.a.

Dott. Marco Regis





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## FIRE RESISTANCE DECLARATION

Tierre Group S.p.a. hereby declares that the following items:



In the following series:

Union Connectors FXUC  
End Plugs FXPF  
Reduced Union Connectors FXG

Have been tested accordingly to the following standard:

### EN 61386-22

Conduit systems for cable management  
Part 22: Particular requirements - Pliable conduit systems

And PASSED the

**glow-wire tests carried out at 750°C**

Cormano, 30th July 2021



TIERRE GROUP S.p.a.

Dott. Marco Regis







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## IMPACT RESISTANCE DECLARATION

Tierre Group S.p.a. hereby declares that the following items:



In the following series:

Union Connectors FXUC  
 End Plugs FXPF  
 Reduced Union Connectors FXG

Have been tested accordingly to the following standard:

### EN 61386-24

Conduit systems for cable management  
 Part 24: Particular requirements – Conduit systems buried underground

And PASSED the

### IMPACT TEST

performed in accordance with IEC 61386-24:2004 (1st Edition) used in conjunction with IEC 61386-1:2008 (2nd Edition)

Cormano, 30th July 2021



TIERRE GROUP S.p.a.

Dott. Marco Regis





[www.net-fit.it](http://www.net-fit.it)   [info@net-fit.it](mailto:info@net-fit.it)





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Cap. Soc. Euro 120.000,00 i.v. - REA MI-1558390

Net.Fit Catalogue - Ed. 2.7 - 03/23