

# System Group - Futura S.p.A.

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# NO FIRE



Caditoia  
frangifiamma  
a doppio sifone

BIM Object Guide:

No Fire Gully

Version

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# BIM Object Guide System Group

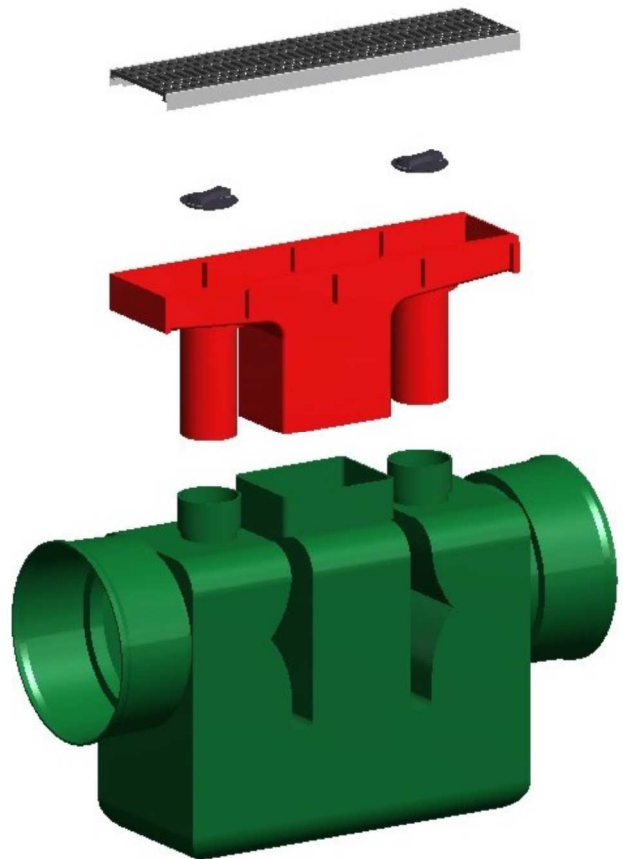
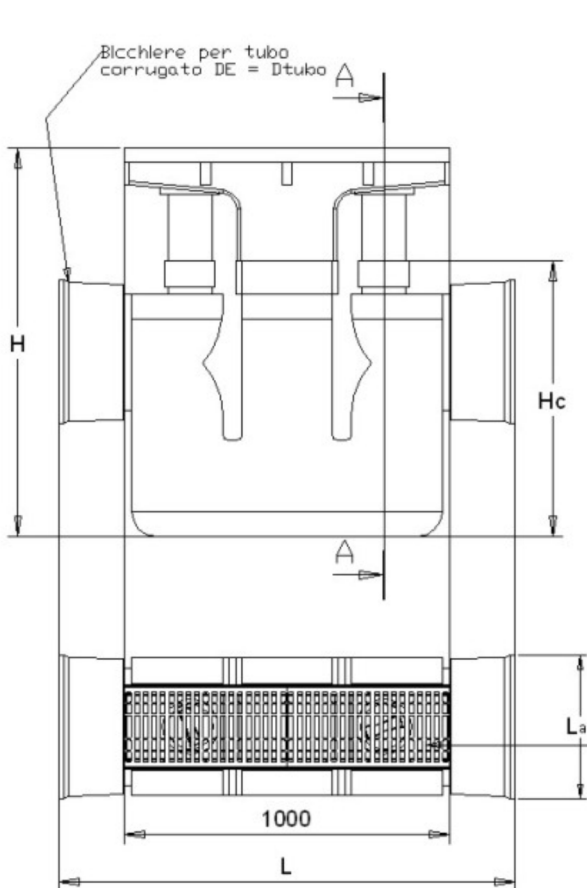
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## 1.0 Introduction:

This document guides the use of the BIM System Group Catalog objects:

Flame trap gully for tunnel drainage systems manufactured in V2 (UL94) fire resistant class polyethylene (PE), made of: one dual syphon chamber with two sockets for IN/OUT connections of corrugated drainage pipes (EN 13476-3); one telescopic tray to drain liquids from the road surface equipped with two inspections with PP caps, two stainless steel stringers and one cast iron grid in class D400.



D tubo	H min	H max	Hc	L	La	Li	Hs	Tolleranze
mm								
452	1000	1200	852	1400	494	412	340	± 10
400					442		393	± 10
338	860	1040	670	1126	371	300	277	± 10
315					347		305	± 10
250	640	840	475	1100	300	215	170	± 10

## 1.1 Denominations

The parameters of the BIM objects are named according to the NBS National BIM Library objects standard to identify their type and configuration.

The fields are aggregated using the underscore character ( \_ ) and the information within the individual field is separated using the "minus" hyphens ( - ) characters. Field names are abbreviated to reduce the size and the separations are identified by capital letters to help readability.

The file and object names named as:

File name

Field1Author\_Field2 Manufacturer\_Field3 Category\_Field4 Product Range

Object

Field1 Author\_ Field2 Manufacturer\_Field3 Category\_Field4 Class Product\_Field5 Variations

## 2.0 Parameters

The parameters included in the BIM:

### 2.1 Pset\_Classification

Uniclass2015Code	A classification code, e.g. Uniclass2015.
CodePerformance	The code compliance requirement(s) which the object satisfies

### 2.2 Pset\_Data

Standard	n/a
Testing	<a href="http://www.systemgroup.cloud/system-group-consulting.asp">http://www.systemgroup.cloud/system-group-consulting.asp</a>

### 2.3 Pset\_COBie

AccessibilityPerformance	The accessibility issue(s) which the object satisfies.
AssetType	An indication of whether the object is fixed or movable.
Description	A description of the type of object to detail any design intent.
Colour	Characteristic or primary colour of product.
Constituents	Optional constituent features, parts or finishes.
DurationUnit	Duration of expected life (typical value is 'years')
ExpectedLife	The typical service life of the object.
Features	Other important characteristics or features relevant to product specification.
Finish	Characteristic or primary finish of product.
Grade	Standard grading which the product corresponds.
Manufacturer	Email address for the organisation responsible for supplying or manufacturing the object
Material	Characteristic or primary material of product.
ModelNumber	The product, item or unit number assigned by the manufacturer of the object.
ModelReference	The name of the object as used by the manufacturer.
Name	A unique human-readable alphanumeric name that begins with the product type.
ConnectedStandardPipe	Connection Type
PipeOD	Connection Diameter
AssembledMinimumHeight	Typically the vertical or secondary minimum characteristic dimension of the assembled product
AssembledMaximumHeight	Typically the vertical or secondary maximum

	characteristic dimension of the assembled product
SiphonedGullyHeight	Typically the vertical or secondary maximum characteristic dimension.
NominalLength	Typically the larger or primary horizontal dimension.
NominalWidth	Nominal width of product, typically the characteristic or secondary horizontal or characteristic dimension.
TotalWeigh	Total weight of product
ReplacementCost	An indicative cost for unit replacement.
Shape	Characteristic shape of product.
Size	Characteristic size of product.
SustainabilityPerformance	Description of the sustainability issue(s) which the object satisfies
WarrantyDescription	Description of the warranty content and any exclusions.
WarrantyDurationLabour	Duration of labour warranty.
WarrantyDurationParts	Duration of parts warranty.
WarrantyDurationUnit	Duration of warranties (typical value is 'years').
WarrantyGuarantorLabour	Email address for the organisation responsible for the labour warranty.
WarrantyGuarantorParts	Email address for the organisation responsible for the parts warranty.
AssetIdentifier	The identification assigned to an asset that enables its differentiation from other assets.
BarCode	The identity of the bar code (or rfid) given to an occurrence of the product (per instance).
InstallationDate	The date that the manufactured item was installed (per instance).
SerialNumber	The serial number assigned to an occurrence of a product by the manufacturer (per instance).
TagNumber	The tag number assigned to an occurrence of a product by the occupier (per instance).
WarrantyStartDate	The date on which the warranty commences.

### 3 - Load the IFC (INDUSTRY FOUNDATION CLASS) BIM object

IFC is a neutral, open, non-proprietary file format and not controlled by a single or group of software producers. The file format is an object oriented parametric developed by BuildingSMART to facilitate interoperability in the field of architecture, engineering and construction. IFC is the collaboration format commonly used in BIM projects. The specification of the IFC model is open and available. In theory, it should allow the exchange and use of relevant data and information between different BIM software.

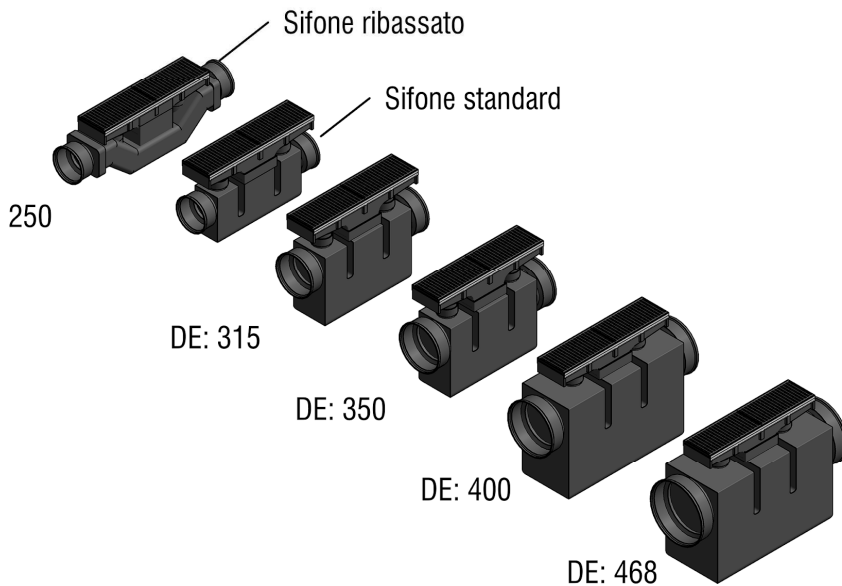
The IFC file is in IFC2x3 format. The new IFC4 scheme is announced soon, but the currently "certified" format is IFC2X3, which is preferred because it allows greater compatibility with the available BIM applications.

In the old versions of Autodesk Revit (example Revit 2013) the export function to the IFC format is done through the use of a specific plugin. IFC is a rapidly developing scheme and new versions of the IFC plugin are often available within the same version of the Revit software. If export is requested in IFC format, we recommend updating the IFC plugin to the latest version. see <http://apps.exchange.autodesk.com/RVT/en/Home/Index>

Please note that System Group assumes no responsibility for the supply of IFC and RVT files, its accuracy, reliability and accuracy, nor for any damages, losses, lost profits, etc. as a result of its use.

For information on the IFC Industry Foundation Class, visit the buildingSMART site information page at <http://www.buildingsmart-tech.org/specifications/ifc-overview>

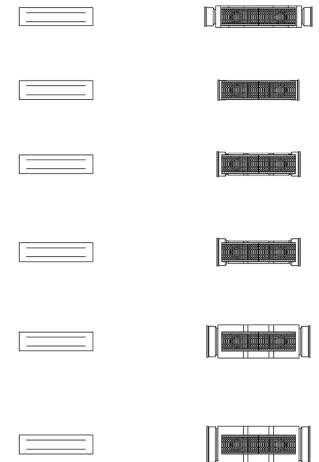
## 4 - Load the BIM object in Autodesk Revit



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Basso

Alto



The BIM object "NO FIRE Flame trap gully for tunnel drainage systems" is intended, to be added to the project, as a loadable <family>.

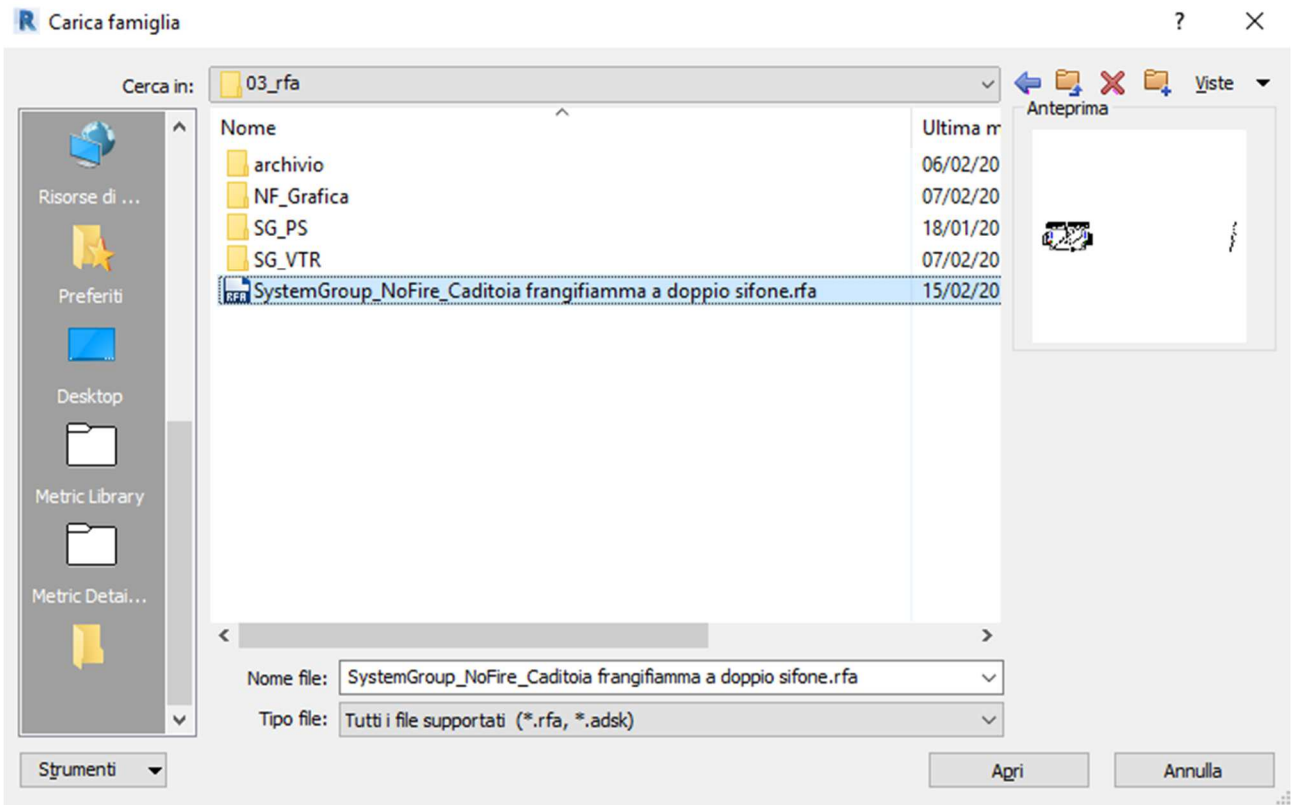
The object is presented in a Revit .rte template file from which it is easy to extract the object in .rfa format.

The typical method for adding a BIM object to the project with the extension .rfa (Revit Family) is as follows:

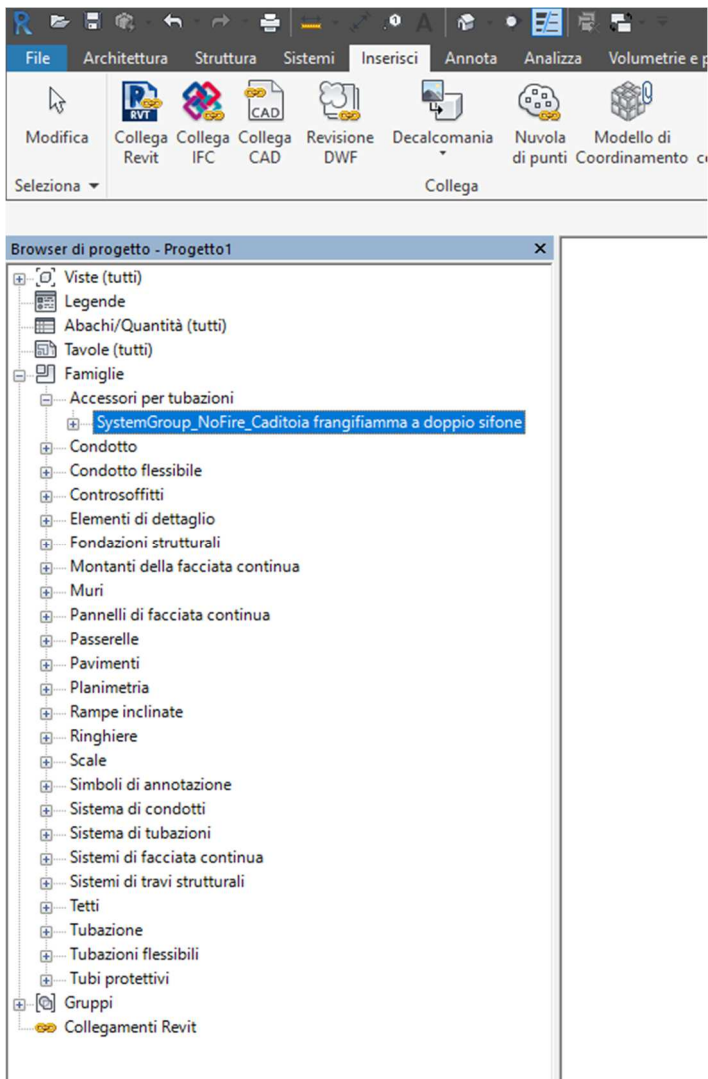





2. locate the path of the downloaded SystemGroup object>>Open



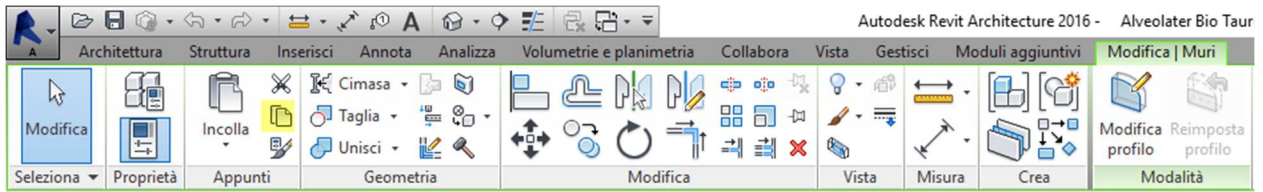
3. the object is now present in the collection of families contained within the RVT project



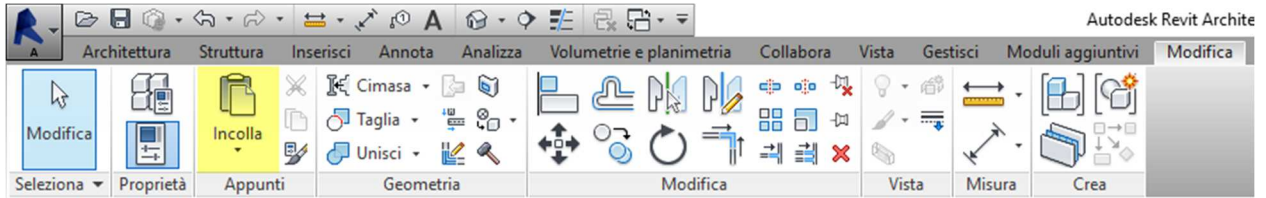
The typical method for adding a BIM-object with the .ifc extension to the Project is:

	<ol style="list-style-type: none"> <li>1. select from the icon  &gt;&gt; Open &gt;&gt; IFC</li> <li>2. The program will open a new window with the inserted BIM object</li> </ol>
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3. Select the object and Copy it (use Ctrl + C from keyboard or Edit tab on the toolbar and select Copy to Clipboard command).



4. Now, in the target window, paste the BIM object file (Ctrl + V on keyboard) or use the Edit and Paste command.

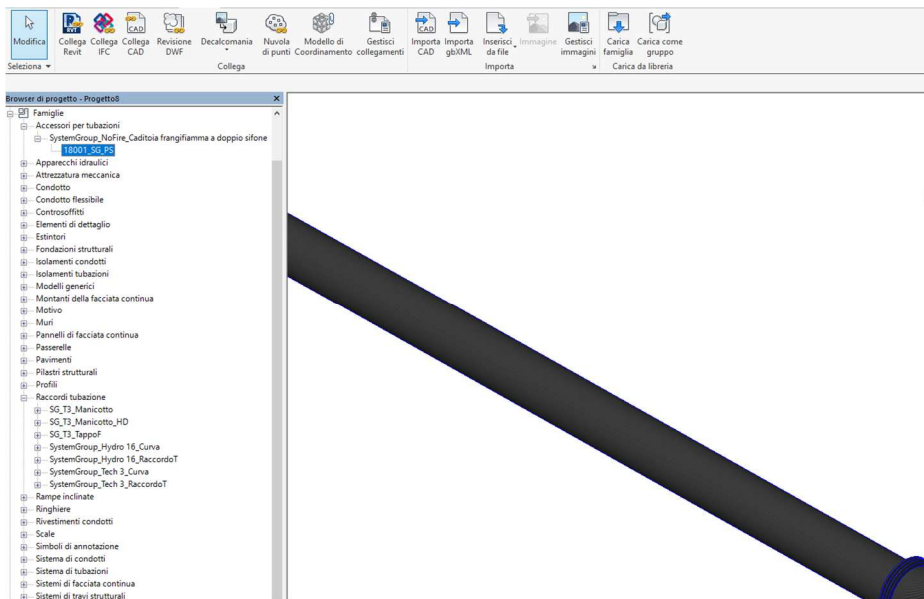


This adds a new family type to the family type list.  
The BIM object is now available for use in the Project file.

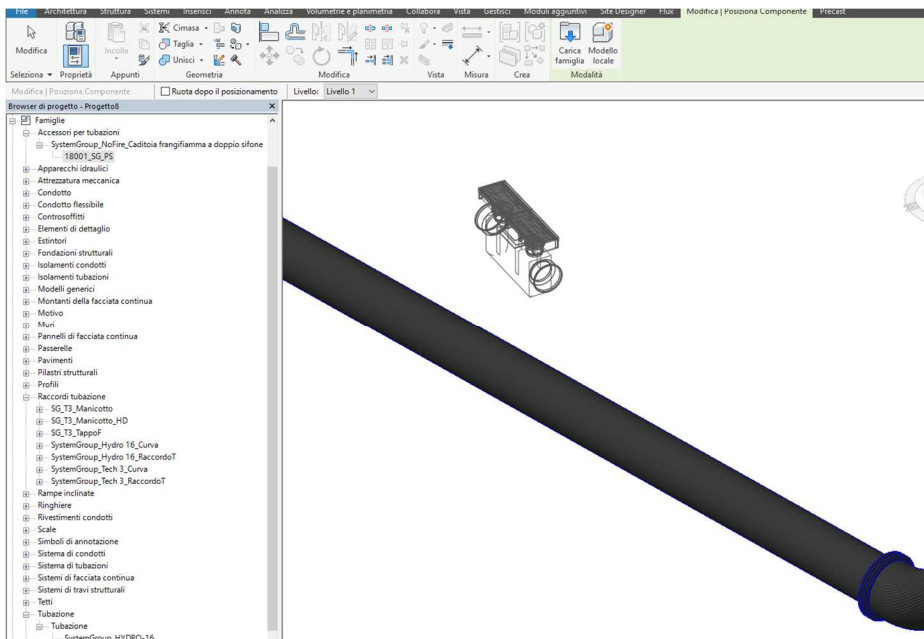
## 5 - Use the BIM object "SystemGroup\_NO FIRE"

The object that has just been loaded into the project belongs to the category "Pipe Accessories" and can be hosted by an object of the "Piping" category within the project. The object can be inserted in the work area both on 2D plan or 3D view. To better understand, we will indicate the steps through the three-dimensional view.

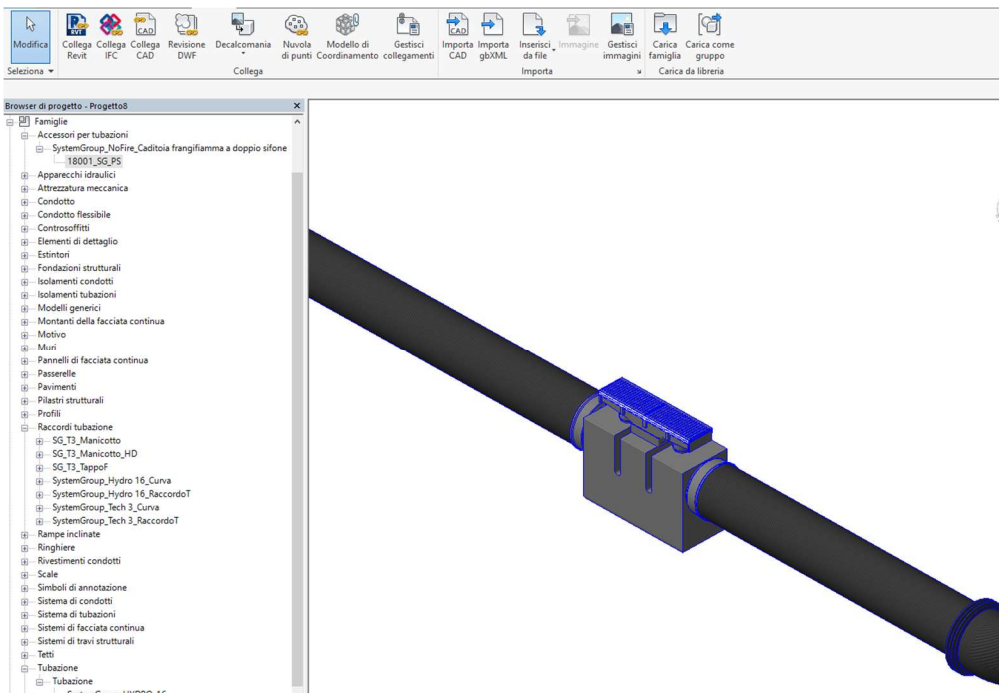
1. To use the object in the model, select the family from the list in the Project Browser and drag it into the work area.



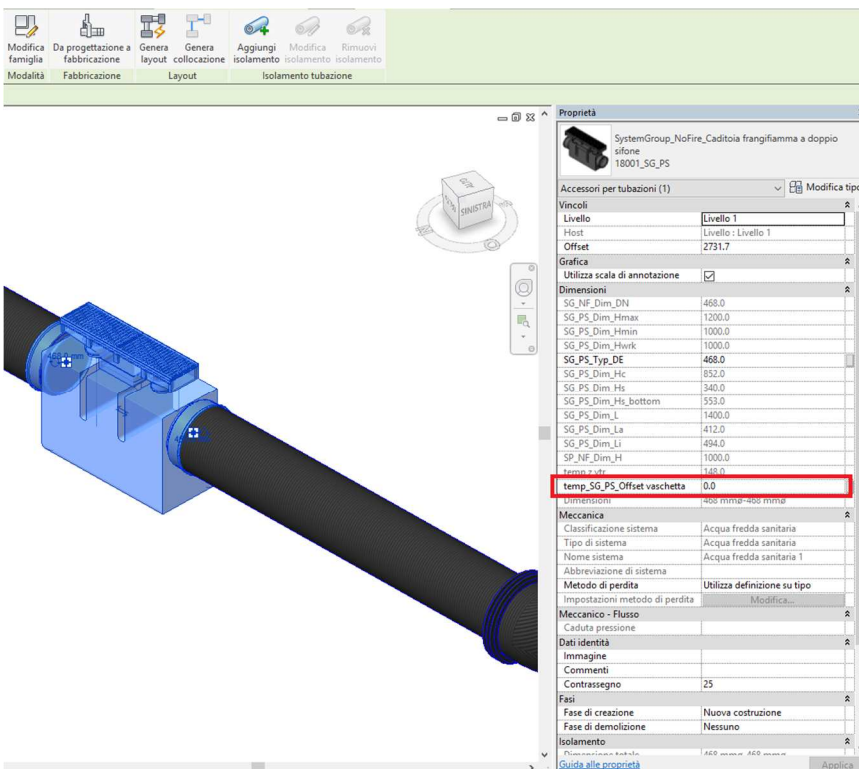
2. The object preview will appear on the cursor.



3. Now move the cursor near the pipe and click with the mouse.



4. Once the object has been positioned, it will be possible to manage the "custom" parameters (which do not depend on the pipe along which the object has been inserted), such as the position of the upper tank simply by clicking on the field (0.0 by default) and typing the offset (depending on the manufacturer's specifications)



## 6 - Supply conditions

The service is offered by System Group SPA "as is", in good faith in the substantial respect of the rules, and no responsibility can be accepted for any damages deriving from use, losses, lost profits, etc. suffered as a result of use.

For more information on the IFC (Industry Foundation Class), visit the BuildingSmart website at <http://www.buildingsmart-tech.org/specifications/ifc-overview>

## 7 - Contacts

System Group technical division is at your disposal for informations about the right application of the products according to the best practices of use.

SYSTEM GROUP TECHNICAL DIVISION

[tecnico@tubi.net](mailto:tecnico@tubi.net)

Please come back to:

[www.tubi.net](http://www.tubi.net)