TECH NOTES

F-1000 Insertion Turbine Flow Meter

ONICON
Flow and Energy Measurement

HOW TO USE ONICON AUTODESK® REVIT® FAMILY

OVERVIEW

The ONICON Revit Family is easy to use and incorporate into any project using Revit 2018 or later. The meter(s) will automatically connect to the piping system at the same elevation, inherit system types and provide installation guidance.

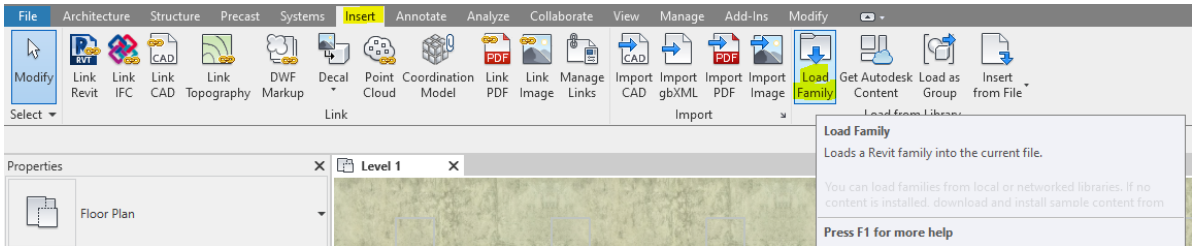
Further explanation of properties are provided with Tool Tips. Tool Tips are accessible by hovering over each parameter in the properties window.

TOOLS REQUIRED

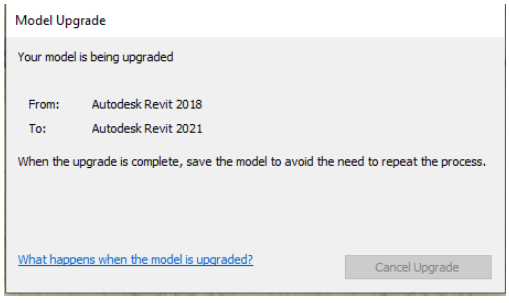
- Revit 2018 or later
- ONICON Revit zip file, located on the product page of the website.

INSERT THE FAMILY INTO A PROJECT

1. Unzip the downloaded file and place the folder in a desired location.
2. In a floor plan view (Revit 2018 or later), navigate to the Insert tab on the ribbon and select **Load Family**.



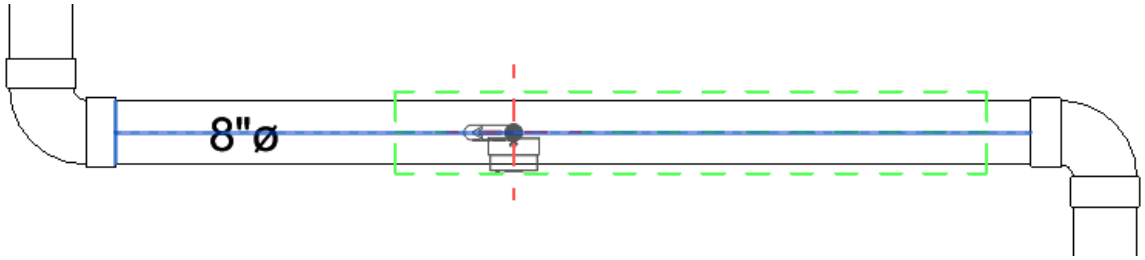
3. Locate the .RFA file in the saved location and select **Open**. The model will automatically upgrade if the current version of Revit is 2018 or later.



4. The family will be added to the Project Browser in the Families section, located under the Pipe Accessory category.

ADDING THE FAMILY TO A PIPE SYSTEM

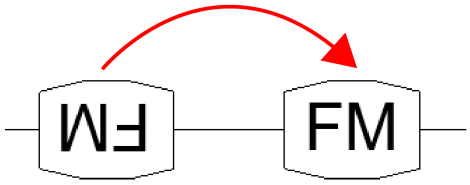
1. Click and drag the family from the Project Browser into a pipe. The centerline of the pipe, where the meter will cut into, will be highlighted.



With the meter selected, in the Properties window, the following sections apply:

1.1 TEXT

- **Symbol Flip** – In a medium or course detail level, if the text is not upright, select this toggle box to correct.



1.2 DIMENSIONS

- Input the nominal pipe diameter in the PIPE DIAMETER parameter.

1.3 MECHANICAL

- **Max Flow – Design -** Allows the user to input a value for maximum design flow rate.

1.4 MECHANICAL – FLOW

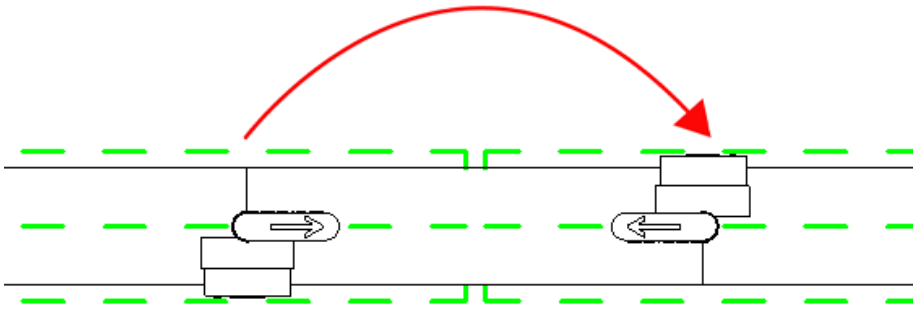
- **Min/ Max Flow - Meter -** Displays min and max flow rate of meter at selected size.

1.5 IDENTITY DATA

- **Mark** – User input for name of individual meter tag (i.e. FM-1, FM-2, etc.).

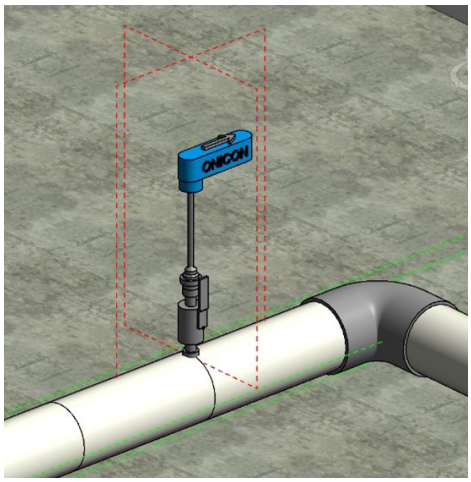
1.6 VISIBILITY

- **One Way Flow Direction –** Toggle this box to change the flow direction arrow. This will change the stream recommendation box for upstream and downstream clearances.

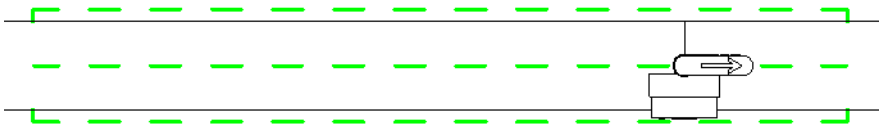


1.6 VISIBILITY (CONTINUED)

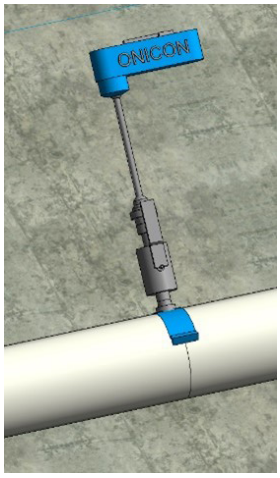
- **Installation Clearance Vis** – This box toggles the visibility of the red installation clearance box required for installing the flow meter.



- **Flow Stream Recommendation Box** – This box toggles the green stream recommendation box. This is a recommendation for straight run of pipe before and after obstructions. Please refer to the F-1000 IOM for a full list of installation considerations.



- **Pipe Saddle Installation** – This box toggles the visibility of the Pipe Saddle for PVC or Carbon Steel installation.
- **Weldolet Installation** – This box toggles the visibility of a weldolet installation for steel pipe.



1.7 OTHER

- a. "Transmitter Cable Length…" – Specify cable length needed for remote mount (mounted transmitter on wall or other location not directly on the stem of the flow meter. 52" is the standard cable length.
- b. "….Tap for…" – Select the specific application of pipe for the installation kit required with the meter.

Other		
Dry Tap for Carbon Steel (default)	☐	=
Dry Tap for Carbon Steel Domestic (default)	☐	=
Dry Tap for Carbon Steel SS Fittings (default)	☐	=
Dry Tap for Stainless Steel (default)	☐	=
Hot Tap for Carbon Steel (default)	☐	=
Hot Tap for Carbon Steel Domestic (default)	☐	=
Hot Tap for Carbon Steel SS Fittings (default)	☐	=
Hot Tap for Carbon Steel or PVC with Saddle 1.	☐	=
Hot Tap for Carbon Steel or PVC with Saddle 8"	☐	=
Hot Tap for Copper Tube with Saddle (default)	☐	=
Hot Tap for Stainless Steel (default)	☐	=
ONICON Installation Kit (default)	Not Specified	= if(Dry Tap for Carbon Steel, "INSTL0001-FMD", i

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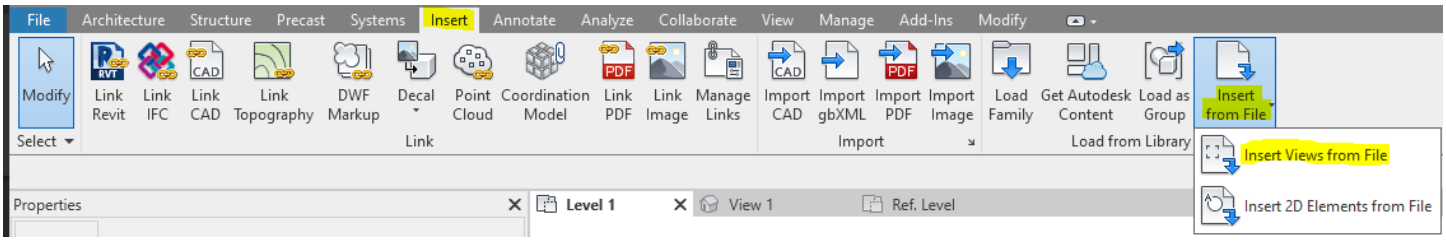
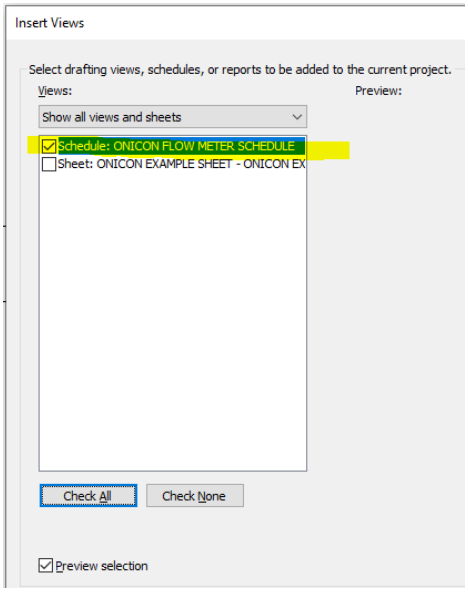
INSERT ONICON METER SCHEDULE INTO A PROJECT

1. In a floor plan view (Revit 2018 or later), navigate to the Insert tab on the ribbon, select **Insert Views from File** and navigate to **ONICON_FLOW_METER_SCHEDULE**.



2. Select the **Schedule: ONICON FLOW METER SCHEDULE** and insert into project.



3. In the Project Browser under Schedules/ Quantities, the newly added schedule **ONICON FLOW METER SCHEDULE** is listed. ONICON meters in the project will automatically be populated into this schedule.

   If an installation kit is not specified, the cell will highlight as an alert.

ONICON FLOW METER SCHEDULE							
TAG #	QTY	MODEL	PIPE DIAMETER	MANUFACTURER	SYSTEM TYPE	MAX DESIGN FLOW RATE	ONICON INSTALLATION KIT
FM-16	1	F-1000	6"	ONICON	Hydronic Supply	750 GPM	Not Specified
FM-17	1	F-1000	18"	ONICON	Hydronic Supply	0 GPM	INSTL0018-FMD
FM-18	1	F-1000	6"	ONICON	Hydronic Return	750 GPM	Not Specified
FM-19	1	F-1000	8"	ONICON	Domestic Cold Water	3000 GPM	Not Specified

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