

# TECH NOTES

## F-4300 Clamp-on Ultrasonic Flow Meter/ Thermal Energy Measurement System



### 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.

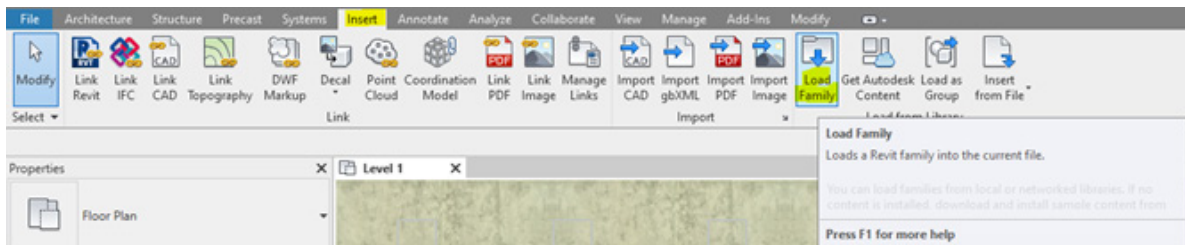


#### TOOLS REQUIRED

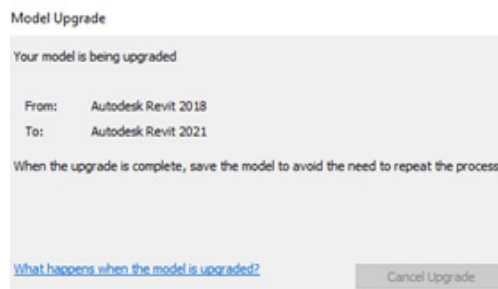
- Revit 2018 or later
- ONICON Revit zip file, located on the product page of the website.

#### 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.

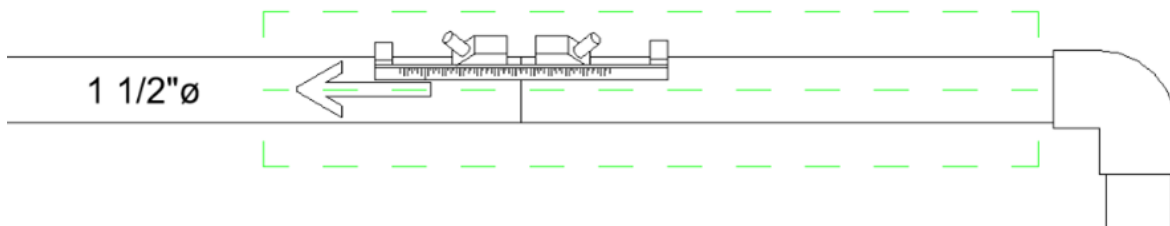
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### ADDING THE FAMILY TO A PIPE SYSTEM

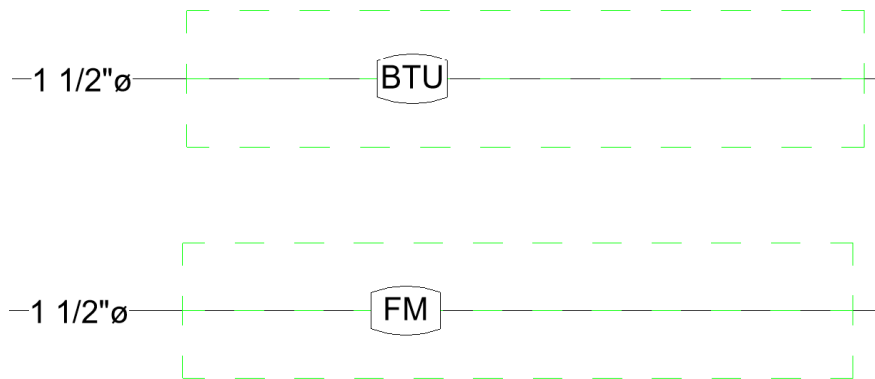
1. Click and drag The Family from the Project Browser into a pipe. The centerline of the pipe, where the meter will cut into, will be highlighted.



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

#### 1.1 GRAPHICS

- **Text** - Select "BTU" or "FM"



#### 1.2 MECHANICAL – FLOW

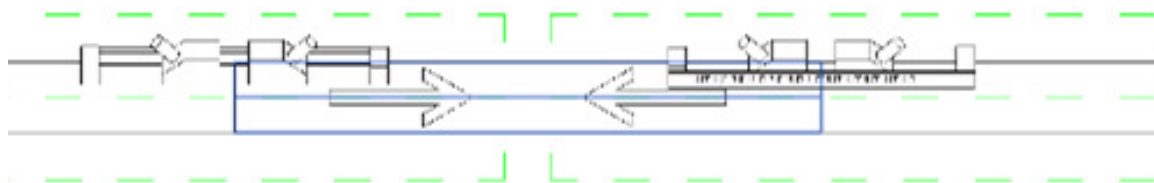
- **Max Flow – Design** - User input for maximum design flow rate, this value will populate into the meter schedule.

#### 1.3 IDENTITY DATA

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

#### 1.4 VISIBILITY

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



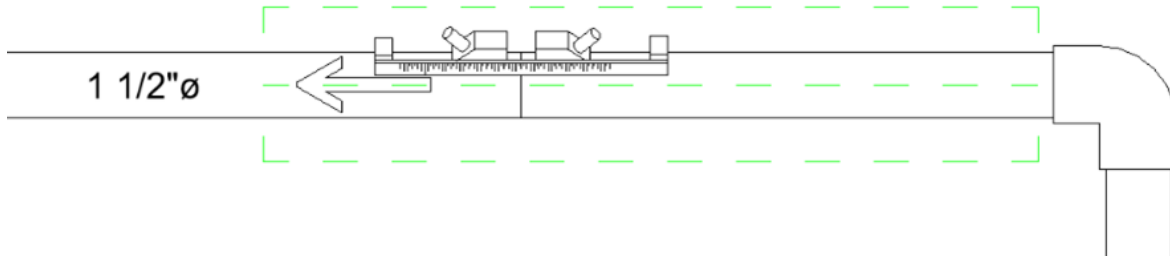
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### 1.4 VISIBILITY (CONTINUED)

- **Bidirectional Flow Meter** – This toggle box will remove the flow directional arrow from the top of the meter and will update the flow recommendation box accordingly.
- **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-4300 IOM for a full list of installation considerations.



### 1.5 OTHER

- **Transmitter Cable Length...** – Specifies the cable length of the remote transmitter. The default cable length is 25'. Optional remote mount cable lengths are 50' or 100'.

Other		
Transmitter Cable Length 25ft (Standard) (default)	<input type="checkbox"/>	=
Transmitter Cable Length 50ft (default)	<input type="checkbox"/>	=
Transmitter Cable Length 100ft (default)	<input type="checkbox"/>	=
Transmitter Cable Length (default)	Not Specified	=

- **....Tap for...** – Populates the recommended ONICON installation kit into the meter schedule. The installation kit model number will automatically populate based on the installation requirements (i.e Dry Tap or Hot Tap, and the pipe material).

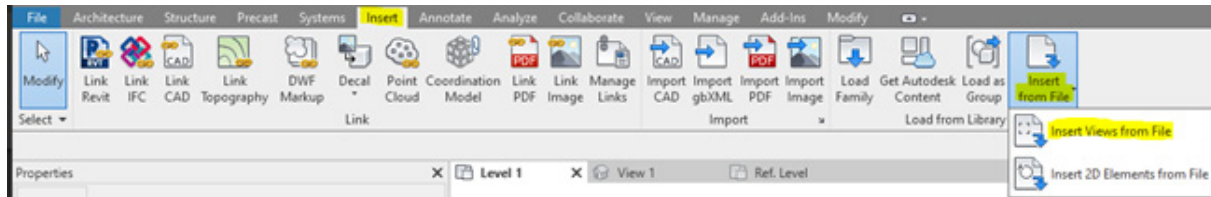
Dry Tap for Carbon Steel (default)	<input type="checkbox"/>	=	
Dry Tap for Carbon Steel Domestic (default)	<input type="checkbox"/>	=	
Dry Tap for Carbon Steel SS Fittings (default)	<input type="checkbox"/>	=	
Dry Tap for Stainless Steel (default)	<input type="checkbox"/>	=	
Hot Tap for Carbon Steel (default)	<input type="checkbox"/>	=	
Hot Tap for Carbon Steel Domestic (default)	<input type="checkbox"/>	=	
Hot Tap for Carbon Steel SS Fittings (default)	<input type="checkbox"/>	=	
Hot Tap for Carbon Steel or PVC with Saddle 1.	<input type="checkbox"/>	=	
Hot Tap for Carbon Steel or PVC with Saddle 8	<input type="checkbox"/>	=	
Hot Tap for Copper Tube with Saddle (default)	<input type="checkbox"/>	=	
Hot Tap for Stainless Steel (default)	<input type="checkbox"/>	=	

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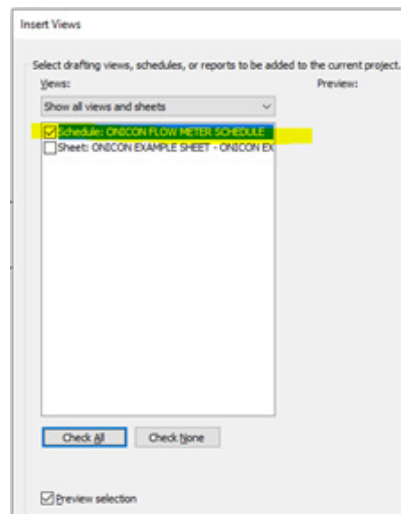
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### INSERT ONICON METER SCHEDULE INTO THE PROJECT

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 populate into this schedule. If a transmitter cable length is not specified, the cell will highlight as an alert.

ONICON FLOW METER SCHEDULE								
TAG #	QTY	MODEL	MANUFACTURER	SYSTEM TYPE	MAX DESIGN FLOW RATE	TRANSDUCER SERIES	SIZE	TRANSMITTER CABLE LENGTH
FM-1.9	1	F-4300	ONICON	Undefined	0 GPM	10 SERIES	2" - 4" Copper and Stainless Steel Pipe	Not Specified
FM-1.10	1	F-4300	ONICON	Undefined	0 GPM	20 SERIES	5" - 10" All Pipe Materials	50ft

If you have any questions or need assistance with the Revit file, please contact ONICON Sales at (727) 447-6140 or [sales@onicon.com](mailto:sales@onicon.com).

