

Duct Fittings Area Calculation

Dynamo script – Revit MEP 2015

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Revit side:

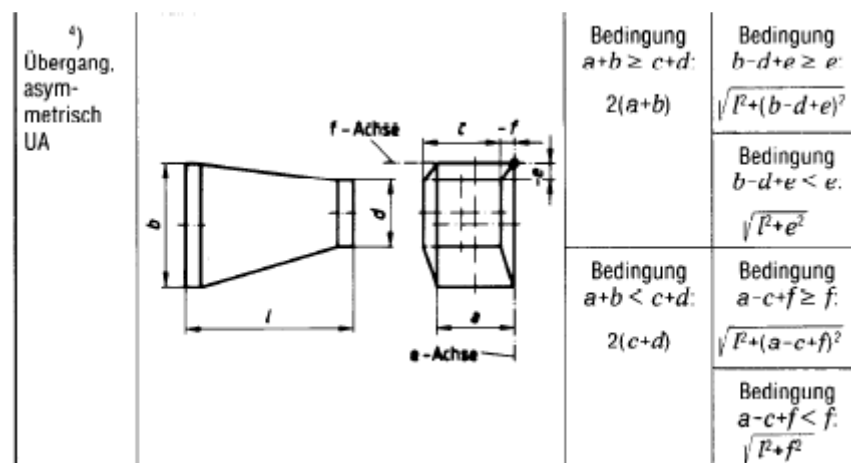
For each family Rectangular Eccentric Duct Transitions we need to make some preparations, namely we need to put to our parameters two new of them – parameter “e” and “f” these two determine vertical and horizontal offset.

We need also add our Sherd Parameter - “Area”

Eigenschaften	
RE_RS Allgemein	
Luftkanalformteile (1) Typ bearbeiten	
Abhängigkeiten	
Grafiken	
HLS	
HLS-Volumenstrom	
Abmessungen	
e	150,0
f	-50,0
x	90,0
l	0,0
c	500,0
Versatzbreite	150,0000 mm
Versatzhöhe	150,0000 mm
d	200,0
a	250,0
b	300,0
Flansch d	300,0
Flansch c	600,0
Flansch a	350,0
Flansch b	400,0
Flanschstärke	5,0
Flanschverlängerung	50,0
Größe	200x500-300x250
ID-Daten	
Phasen	
Bemessungsergebnisse	
Area	0,615 m ²
Dämmung außen	
Dämmung innen	
Sonstige	
x2	50,0
x1	50,0
l1	500,0

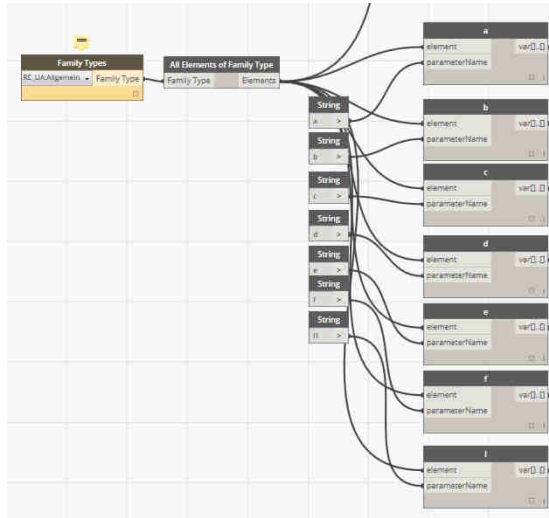
Eigenschaften	
RE_UA Allgemein	
Luftkanalformteile (1) Typ bearbeiten	
Berechnungsmethode für Dru...	Koeffizient aus ASHRAE-Tab...
Berechnungsmethode für Dru...	Bearbeiten...
HLS-Volumenstrom	
Druckverlust	
Abmessungen	
e	-25,0
f	-50,0
x	50,0
l	0,0
c	150,0

Section from **DIN18379** describe way to Duct Fittings Area calculation



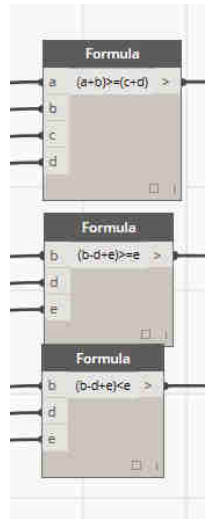
Dynamo side :

Choose your Family type and define all parameters which will be used for calculations.

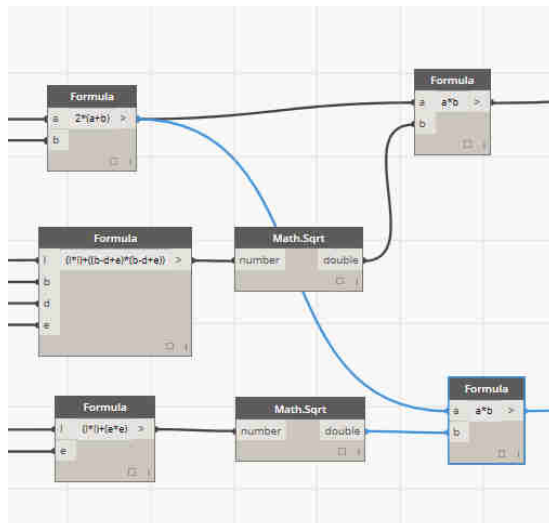


Define conditions according DIN18379

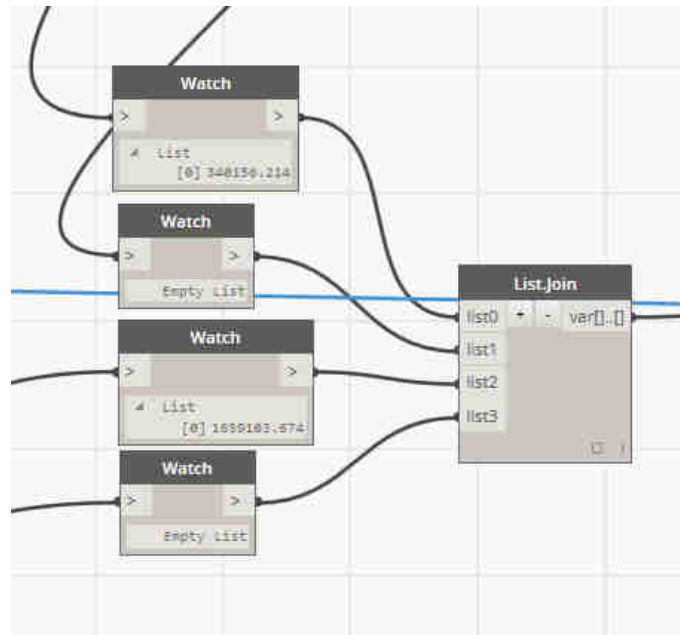
Main problem is to decide which formula should be taken to the list according to our conditions.



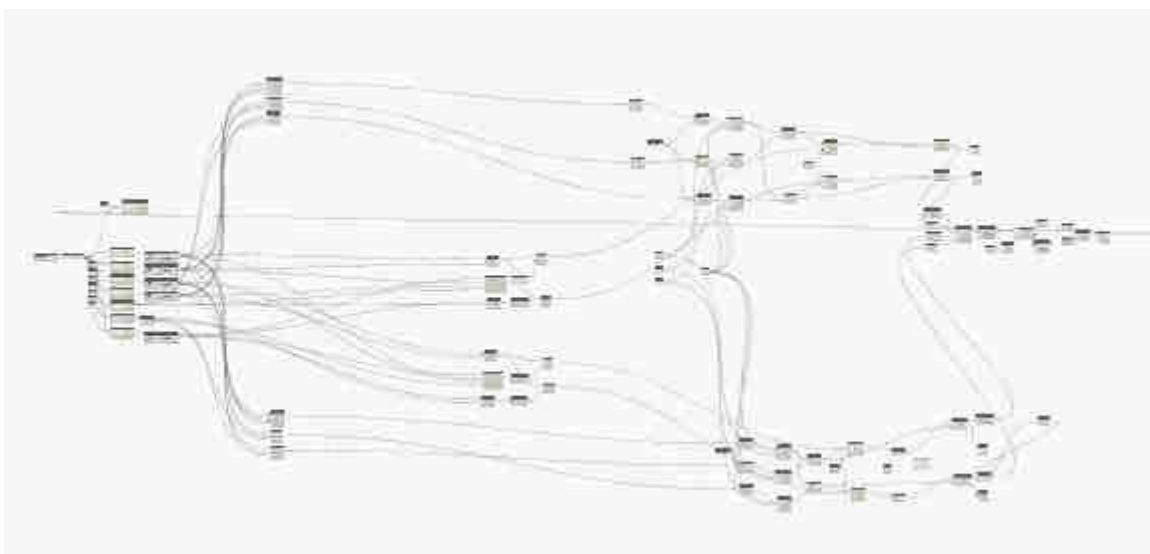
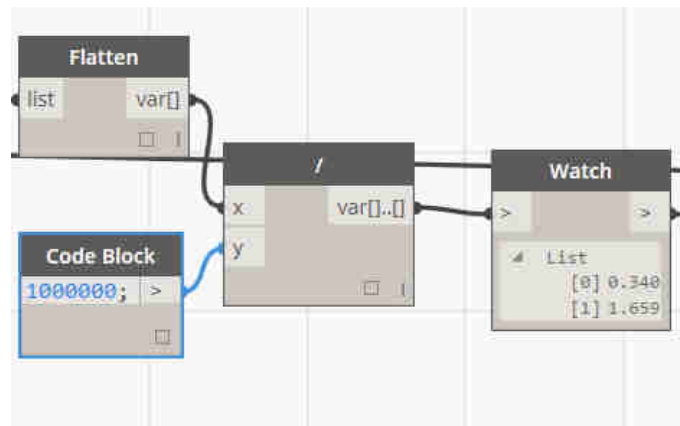
Calculation formula when condition are gain.



List.Join help us to create one list with all values after our conditions checking.

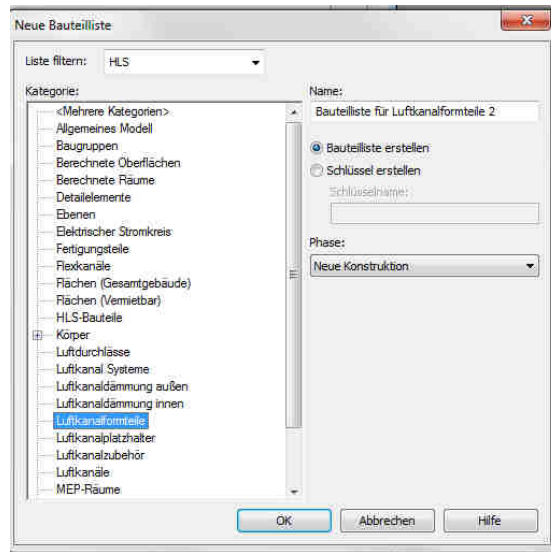


Last part of our algorithm change our units from square mm to square m.

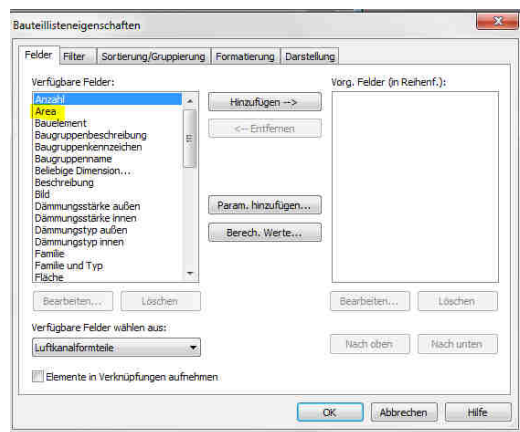


Revit side:

We need to create Duct Fittings Schedule



We need add our Shared Parameter to our schedule



Final result: Duct Fittings with area

