



Pipe Network EU

Content package guidance material

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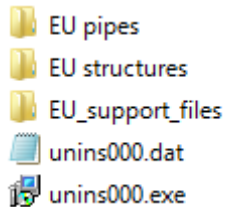
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Installation

Run **setup.exe** to extract the content (default path: *C:\ProgramData\Autodesk\C3D 2018\enu\Pipes Catalog*). Installation does not affect any registry settings, you are adding additional content pack to the location you indicate.

After catalog installation, following catalogs/files appear:

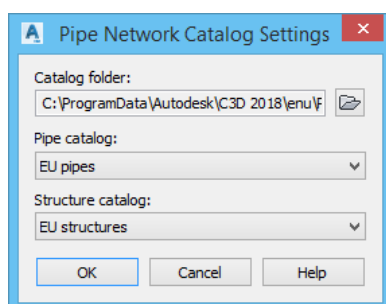
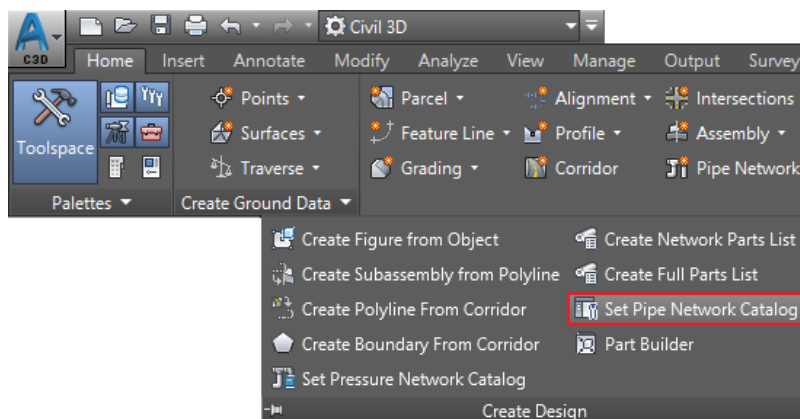


- *EU pipes* – additional pipe catalog
- *EU structures* – additional structure catalog
- *EU_support_files* – additional information about the use of this catalog
- *unins000.exe* – uninstallation of the current catalog

Installation requires to copy additional, custom template files to noted location (default: *C:\ProgramData\Autodesk\C3D 2018\enu\ContentLibrary\Templates*). Please make a backup before overwriting. You also find a QTO file (*Civil3D_QTO_EU.csv*), that can be used for *quantity takeoffs*.

Preliminary activities - catalog set up

Open an example *DWG* file. Ensure that you refer to a recently installed catalog.



Catalog in action

Catalog is meant for gravity pipeline design. You can find pipes in various pressure classes and manholes in various diameters. In that way you can more easily carry out clash detection analysis, because everything is in real dimensions. To add a new pipeline, use the tool: *Home > Create Design > Pipe Network > Pipe Network Creation Tools*.

Design with new catalog components doesn't differ from the standard catalog components.

Note: Various pressure classes do have different pipe inner diameter as well as wall thickness. You can combine different components (from various pressure classes) if you do not find a proper components under some specific *SDR* group. If you do so, the visual result may not look correct. All components are created based on manufacturer data sheet (except manholes, where manhole diameter is major parameter that is taken over). All components include additional information that can be used in labels.

Pipe data

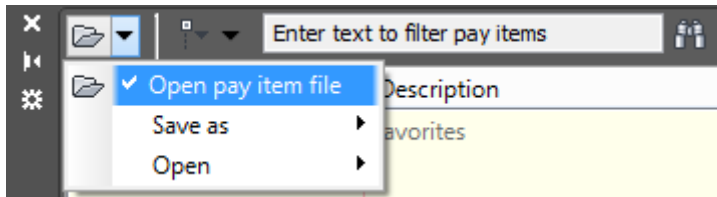
Part Data	
Part Type	Pipe
Part Subtype	Undefined
Part Description	Plain end pipe (PE, SN4, Weholite, Uponor)
Part Size Name	511
Cross Sectional Shape	Circular
Wall Thickness	30.500mm
Material	PE
Minimum Curve Radius	0.000m
Manning Coefficient	0.009
Hazen Williams Coefficient	140.000
Darcy Weisbach Factor	0.032
Inner Pipe Diameter	450.000mm

Manhole data

Part Data	
Part Type	Junction Structure
Part Subtype	Undefined
Part Description	Inlet Structure 800 mm
Part Size Name	Diameter 800 Grate 440
Structure Shape	Cylinder
Vertical Pipe Clearance	350.000mm
Rim to Sump Height	4.542m
Wall Thickness	10.000mm
Floor Thickness	10.000mm
Material	PE
Frame	Standard
Grate	Grate A
Cover	Standard
Frame Height	50.000mm
Frame Diameter	440.000mm
Frame Length	
Frame Width	
Barrel Height	
Barrel Pipe Clearance	300.000mm
Cone Height	
Slab Thickness	
Inner Structure Diameter	780.000mm
Structure Height	4.552m
Structure Diameter	800.000mm

If you want to use quantity takeoff tool, please ensure that all your componets have pay item included.

Open: *Analysis > QTO > QTO Manager*



Connect to included pay item file: *Civil3D_QTO_EU.csv*

When connection are made, use the tool: *Analysis > QTO > Takeoff*

As a result you should have a summary of your pipe/structure components.

A screenshot of a window titled 'Quantity Takeoff Report'. The window contains a table with the following data:

Pay Item ID	Description	Quantity	Unit
50103-00140	DN800; STORM SEWAGE; PE; Plain end; Krah Pipes; SN2	57.803	M1
50103-00141	DN1000; STORM SEWAGE; PE; Plain end; Krah Pipes; SN2	118.144	M1
50201-005	INLET; D560; Grate 315	1	EACH
50202-0011	ACCESS STRUCTURE; D560; Cover 315	3	EACH

The window also has a title bar, a close button, and a status bar with buttons for 'Draw', 'Save As...', 'Close', and 'Help'.

Note: *Pay Item ID* and *Description* comes from *CSV* file. You can change that information if you want to. If you change *pay item ID* value, you also need to recreate the connection from component to pay item article.

Available content in the catalog (pipes)

Ring stiffness, SN (EN ISO 9969)	SN2	SN4	SN6	SN6.3	SN8	SN10	SN12.5	SN16	SN20			
Standard Dimension Ratio	SDR33	SDR26	-		SDR22	SDR21	-	-	SDR17	SDR11		
Pressure Class (PN), PE100	5	6				8			10	16	25	40
Cast iron												
Flanged (Duktus)									DN200 - - DN1000	DN100 - - DN1000	DN100 - - DN1000	DN40 - - DN600
PE												
Plain end; Profuse (Uponor)									DN110 - - DN400			
Plain end; TS (Wavin)									DN225 - - DN450	DN20 - - DN1000		
Plain end; Weholite (Uponor)		DN400 - - DN3000	DN400 - - DN3000		DN300 - - DN3000	DN300 - - DN2600						
Plain end (Krah Pipes)	DN500 - - DN3000	DN500 - - DN3000	DN500 - - DN3000		DN500 - - DN3000							
Plain end; Wehoduo OD (Uponor)					DN110 - - DN400							
Socket pipe; Weholite (Uponor)		DN400 - - DN1000			DN300 - - DN1000							
Socket pipe; Drain; 180deg (Pipelife)					DN110 - - DN250							
Socket pipe; Drain; 360deg (Pipelife)					DN110 - - DN250							
Socket pipe; Wehoduo OD (Uponor)					DN110 - - DN400							
Socket pipe; Wehoduo OD Drain; 120deg (Uponor)					DN110 - - DN400							
Socket pipe; Wehoduo OD Drain; 360deg (Uponor)					DN110 - - DN400							
Socket pipe; Wehoduo Okra (Uponor)					DN110 - - DN400							
PP												
Plain end; Building (Uponor)		DN32 - - DN75			DN110							
Plain end; Wehoduo ID (Uponor)					DN150 - - DN455							
Plain end; X-Stream (Wavin)					DN150 - - DN800							
Plain end; Asto; Building (Wavin)	DN58 - - DN200											
Socket pipe; Wehotripla (Uponor)					DN110 - - DN400	DN110 - - DN400	DN110 - - DN400	DN110 - - DN400				
Socket pipe; Building (Pipelife)	DN75 - - DN110	DN75 - - DN110		DN32 - - DN50								
Socket pipe; Building (Uponor)	DN50 - - DN110	DN32 - - DN75			DN110							
Socket pipe; ID Pragma (Pipelife)					DN300 - - DN1000							
Socket pipe; Pragma (Pipelife)					DN160 - - DN630							
Socket pipe; Stark (Pipelife)					DN110 - - DN630							
Socket pipe; Dupplex (Uponor)					DN160 - - DN400							
Socket pipe; Wehoduo ID (Uponor)					DN150 - - DN455							
Socket pipe; X-Stream (Wavin)					DN150 - - DN800							
Spigot pipe; Wehotripla (Uponor)					DN110 - - DN400	DN110 - - DN400	DN110 - - DN400	DN110 - - DN400				
PVC												
Plain end; Corrugated (Pipelife)	DN50 - - DN180											
Plain end; Corrugated (Wavin)	DN50 - - DN180											
Socket pipe; NAL (Pipelife)		DN110 - - DN200			DN110 - - DN200							
Socket pipe; Wehonal (Uponor)		DN160 - - DN630			DN160 - - DN630							
Socket pipe; Multilayer (Wavin)		DN110 - - DN500			DN110 - - DN500							
Socket pipe; Monoline (Wavin)					DN110 - - DN500							

Available content in the catalog (structures)

Structures are separated by its type (access, inlet) and diameters. Structures in this catalog are in range 315 – 1600 mm. You can combine those with default components that comes with *AutoCAD Civil 3D*.