

## ArCADia EXTERNAL GAS INSTALLATIONS

Professional documentation of a gas connection, including an external gas system.



The program allows you to produce professional design documentation of a gas connection, including an external gas system. Intended for both gas network and system designers and all people associated with the plumbing and installation sectors in civil engineering. Try our object-oriented creation of drawings of gas connections and external gas system elements.

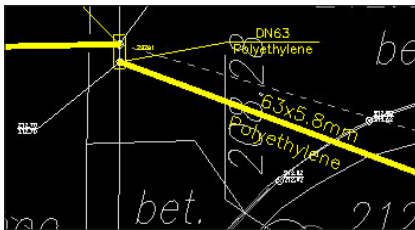
The design can be realised on spatial development plans in the form of geodesic base maps or the user's own drawings representing an existing or proposed network.

Intuitive automatic creation of design diagrams and longitudinal profiles for pipeline routes, including system elements, calculations, pressure verification.

This module expands the capabilities of the ArCADia BIM program with advanced functions, which means that part of the building modelling options are available in the ArCADia BIM program:

**ArCADia LT, ArCADia, ArCADia PLUS**

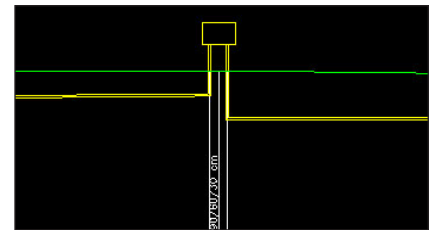
Advanced features of The ArCADia-EXTERNAL GAS INSTALLATIONS module:



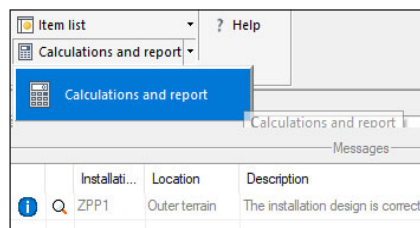
The generation of drawings of external gas system as regards pipeline routes, shut-off fittings, locations and dimensions of free-standing and wall-mounted gas boxes.

Calculations				
- Paths				
Path	Total pipeli...	Report		
<input checked="" type="checkbox"/> ZPP1 - ZSZG2	73.30	<input checked="" type="checkbox"/>		
Section name	P min/max [kPa]	Qobl [m³/h]	Dimens	
ZSZG2 - ZSZG1	1.51/4.91	40.00	63.00 x	
ZSZG1 - ZPP1	1.60/5.00	50.00	63.00 x	

The determination of gas flow in sections of external gas system lines.

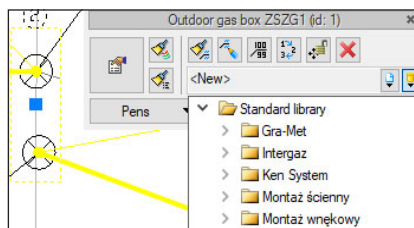


The creation of profiles and design diagrams.



The calculation of pressure drops in external gas system lines.

The verification of a designed gas system for correctness.



The possibility of the quick and simple addition of databases to the main program library and the selection of folders to be used in a given system design.

Pressure loss report							
<b>Real gas parameters:</b>							
Family: Natural gas (2)							
Group: High methane (E)							
Gas combustion heat: $H_u = 33.7 \text{ MJ m}^{-3}$							
Gas fuel value: $H_i = 31 \text{ MJ m}^{-3}$							
Gas density: $\rho_g = 0.72 \text{ kg m}^{-3}$							
Kinematic viscosity: $\gamma = 1.43e-05 \text{ m}^2 \text{ s}^{-1}$							
<b>Connection gas pressure: low</b>							
$P_{min} = 1.6 \text{ kPa}$							
$P_{max} = 5 \text{ kPa}$							
<b>Installation input gas pressure:</b>							
$P_{p min} = 1.6 \text{ kPa}$							
$P_{p max} = 5 \text{ kPa}$							
Section name	Min max input	Computat and flow	Pipe dimensions	Flow velocity	Connectio n length	Unit pressure	Total pressure

The generation of design reports, ready-made bills of materials and hydraulic calculations.