
BERMAD AIR
SOFTWARE PARA DIMENSIONAMIENTO DE VENTOSAS

BERMAD AIR

Ventosas Automáticas

Ventosas

Cinéticas/Trifuncionales

El software BERMAD AIR calcula la necesidad de ventosas en cada nodo

The screenshot displays the BERMAD AIR software interface. The main workspace shows a graph with two lines: a red line for the Piezometric Line and a blue line for the Topographic Line. The graph has a horizontal axis from 0 to 2400 and a vertical axis from 0 to 80. The Piezometric Line starts at approximately 85 at x=0 and decreases to about 55 at x=2400. The Topographic Line starts at 0 at x=0, rises to 30 at x=800, drops to 10 at x=1200, rises to 20 at x=1600, drops to 10 at x=2000, and rises to 50 at x=2400. A legend in the bottom left identifies the lines. The Node Properties dialog box is open, showing details for a valve at Station 'Combination'. The dialog includes fields for Catalog ID, Diameter, Model, Additional, Material, Valve Outlet, Connection Type, Coating, and Description. A legend for Automatic Valves is also visible, listing various valve types like Pressure Reducing Valve, Isolation Valve, Non-return valve, Pump, Reservoir, Water Tower, Demand, Drainage Valve, and No Solution.

Node Properties

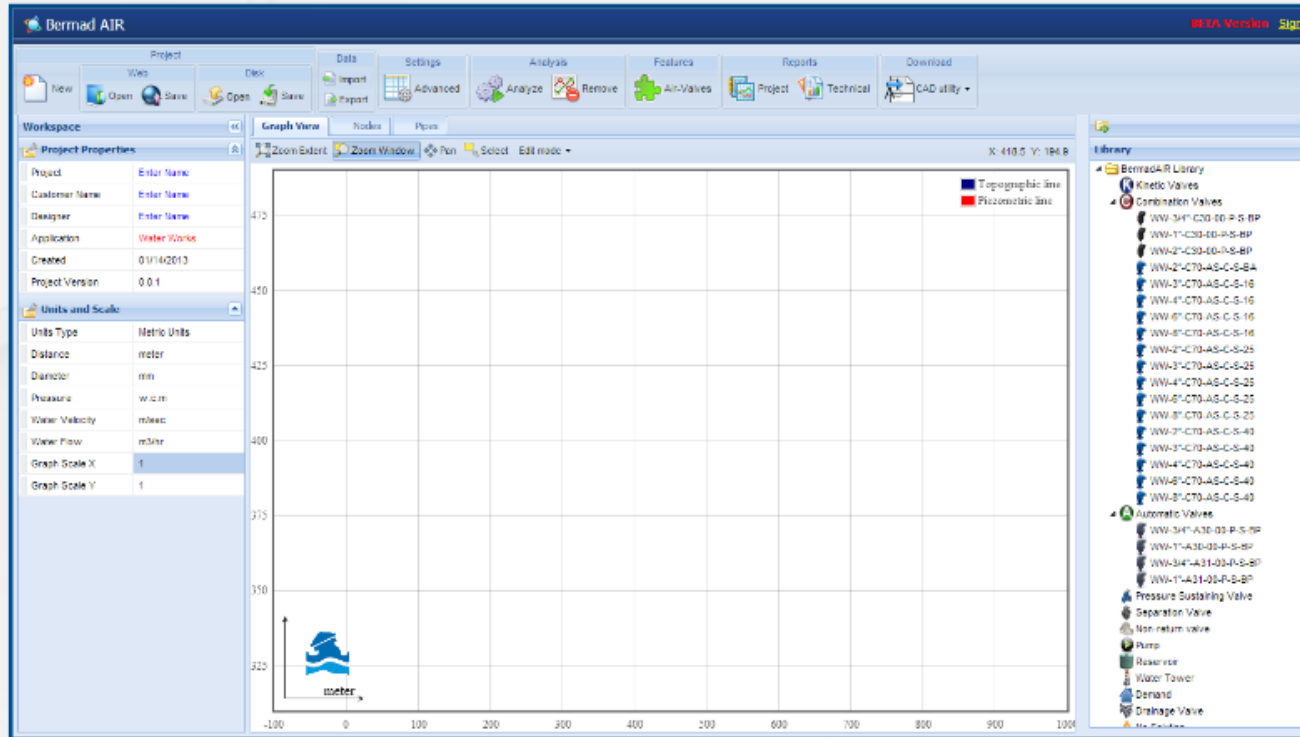
Station	Combination
Catalog ID	WW-3"-C70-00-C-D-A5-EV
Diameter	80 [mm]
Model	C70
Additional	None
Material	Ductile_Iron
Valve Outlet	Down Outlet
Connection Type	ANSI-150
Coating	Epoxy Blue Ultraviolet Protection
Description	Waterworks, Combination air valve, Ductile iron, , Flanged 3" ANSI-150 Down Outlet Epoxy Blue Ultraviolet Protection.

Automatic Valves Legend:

- Pressure Reducing Valve
- Isolation Valve
- Non-return valve
- Pump
- Reservoir
- Water Tower
- Demand
- Drainage Valve
- No Solution

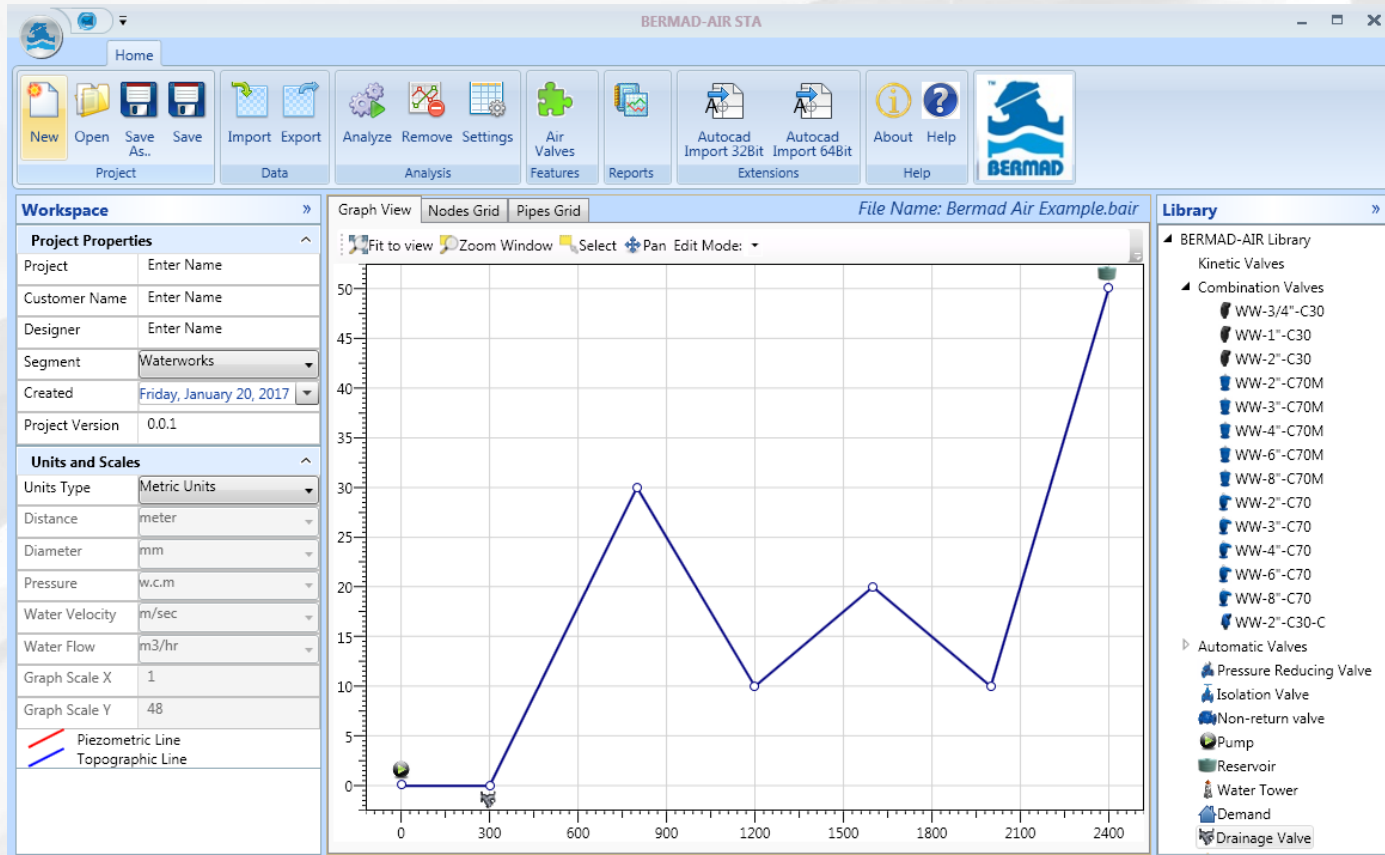
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El software BERMAD AIR calcula la necesidad y tamaño de ventosa a lo largo de la tubería



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Settings

Analysis

- Pipeline Filling Filling Velocity 0.5 [m/sec]
- Rupture Damage Rate 40 [%]
- Drainage
- Burst
- Max. Distance 800 [meter] Distance Preference

Default

Waterworks

Select	Model	Material	Diameter	Default Connection
<input type="checkbox"/>	C30	Plastic		
<input type="checkbox"/>	C70 Mushroom	Ductile Iron		
<input checked="" type="checkbox"/>	C70 Down	Ductile Iron		A5_ANSI-150
<input type="checkbox"/>	C30-C	Ductile Iron		
<input type="checkbox"/>	A30	Plastic		
<input type="checkbox"/>	A31	Plastic		
<input type="checkbox"/>	A71	StainlessSteel		

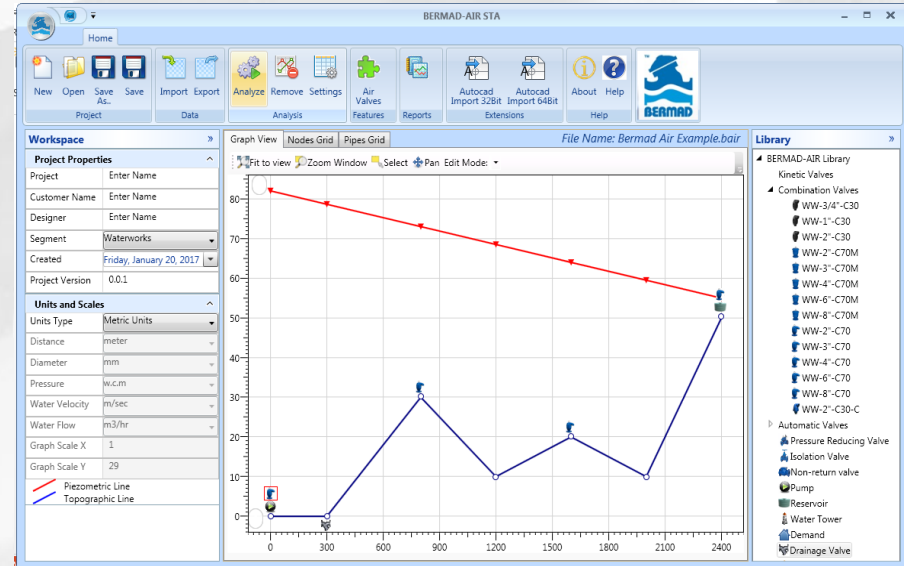
Default

UNIFORM MANIFOLD

Optimize Nodes

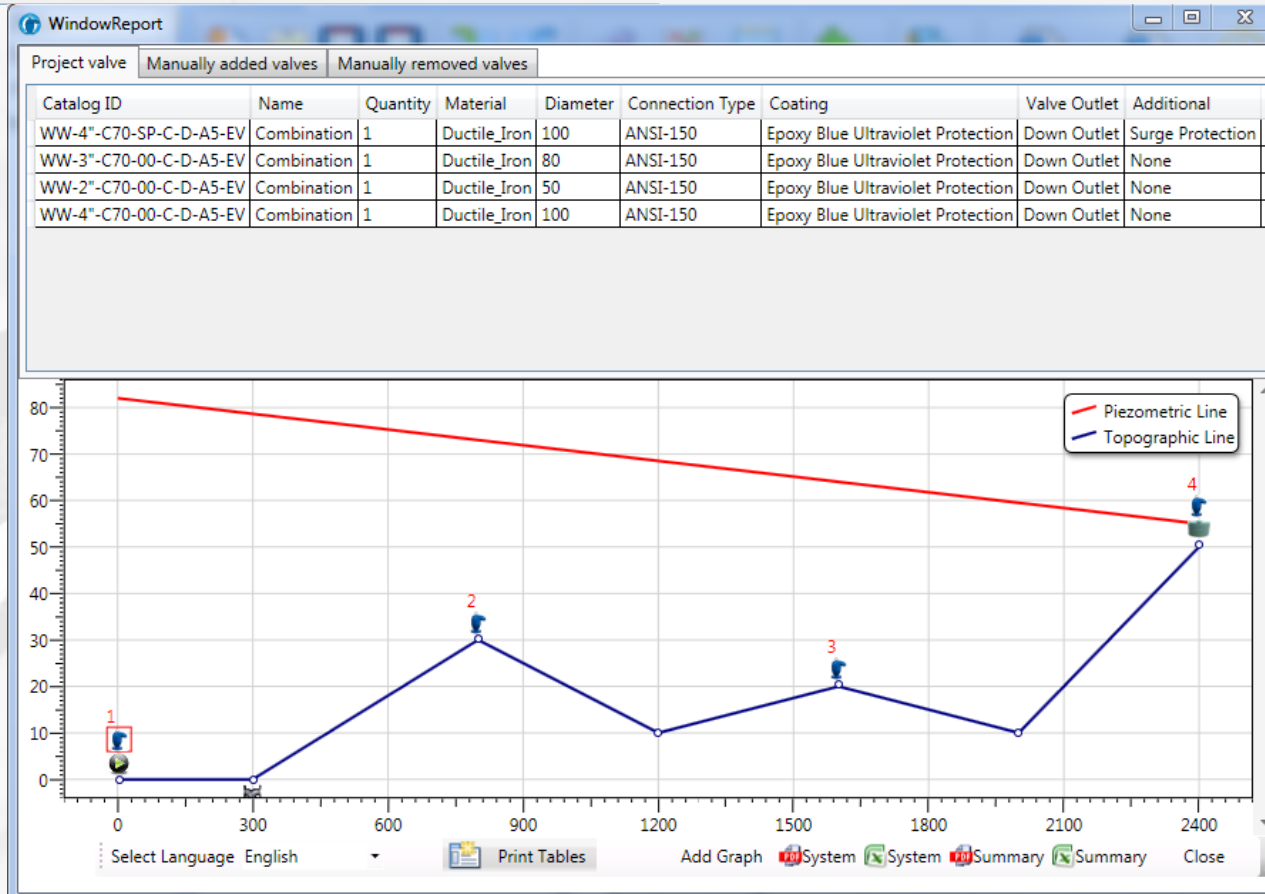
Advanced Parameters

Save



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BERMAD Air Software Summary Report

Project Name: Enter Name
Date: 1/20/2017

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File Name:	Bermad Air Example.bair	Distance Units:	meter		
Customer Name:	Enter Name	Elevation Units:	meter	Max Space Air Valves	800 [meter]
Designer Name:	Enter Name	Pressure Units:	w.c.m	Burst Damage Rate	0 [%]
Created:	1/20/2017	Pressure (Calculated):	82.0	Rupture Damage Rate	40 [%]
Application:	Waterworks	Pressure (Input Data):	60.0	Pipeline Filling	Yes
Graph Y Scale	1:48	Head Flow:	2000 [m3/hr]	Filling Velocity	0.5 [m/sec]

Air Valves Installations

Site No.	Node Name	Distance From Origin	Node Elevation	Node Pressure	Qty.	Icon	Catalog ID	Remarks
1		0.0	0.0	82.0	1		pump	
					1		WW-4"-C70-SP-C-D-A5-EV	
2		300.0	0.0	78.7	1		drainage	
3		800.0	30.0	43.0	1		WW-3"-C70-00-C-D-A5-EV	High Point
4		1,600.0	20.0	44.0	1		WW-2"-C70-00-C-D-A5-EV	High Point
5		2,400.0	50.0	5.0	1		reservoir	High Point
					1		WW-4"-C70-00-C-D-A5-EV	

Project Air Valves

Catalog ID	Qty.	Description	Remarks
WW-4"-C70-SP-C-D-A5-EV	1	Waterworks, Combination air valve, Ductile iron, Surge Protection, Flanged 4" ANSI-150 Down Outlet Epoxy Blue Ultraviolet Protection.	
WW-3"-C70-00-C-D-A5-EV	1	Waterworks, Combination air valve, Ductile iron, , Flanged 3" ANSI-150 Down Outlet Epoxy Blue Ultraviolet Protection.	
WW-2"-C70-00-C-D-A5-EV	1	Waterworks, Combination air valve, Ductile iron, , Threaded 2" ANSI-150 Down Outlet Epoxy Blue Ultraviolet Protection.	
WW-4"-C70-00-C-D-A5-EV	1	Waterworks, Combination air valve, Ductile iron, , Flanged 4" ANSI-150 Down Outlet Epoxy Blue Ultraviolet Protection.	



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BERMAD Air Software Summary Report

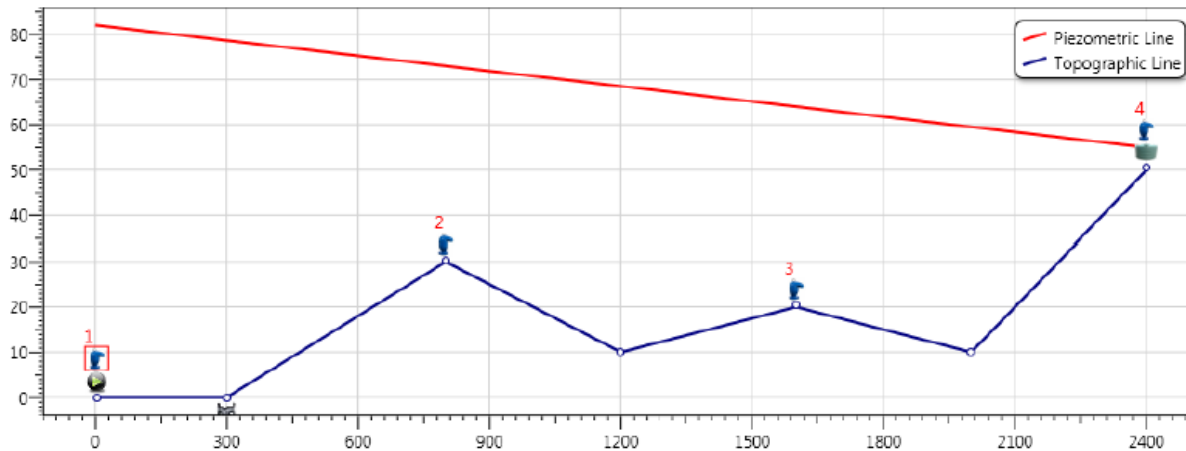
Project Name: Enter Name
Date: 1/20/2017

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Summary Air Valves

Catalog ID	Quantity	Description	Remarks
WW-4"-C70-SP-C-D-A5-EV	1	Waterworks, Combination air valve, Ductile iron, Surge Protection, Flanged 4" ANSI-150 Down Outlet Epoxy Blue Ultraviolet Protection.	
WW-3"-C70-00-C-D-A5-EV	1	Waterworks, Combination air valve, Ductile iron, , Flanged 3" ANSI-150 Down Outlet Epoxy Blue Ultraviolet Protection.	
WW-2"-C70-00-C-D-A5-EV	1	Waterworks, Combination air valve, Ductile iron, , Threaded 2" ANSI-150 Down Outlet Epoxy Blue Ultraviolet Protection.	
WW-4"-C70-00-C-D-A5-EV	1	Waterworks, Combination air valve, Ductile iron, , Flanged 4" ANSI-150 Down Outlet Epoxy Blue Ultraviolet Protection.	



BERMAD-Air sizing software calculates solutions for steady-state flow conditions. Other calculation methods should be used for non steady-state flow conditions such as water surge.





THANK YOU!