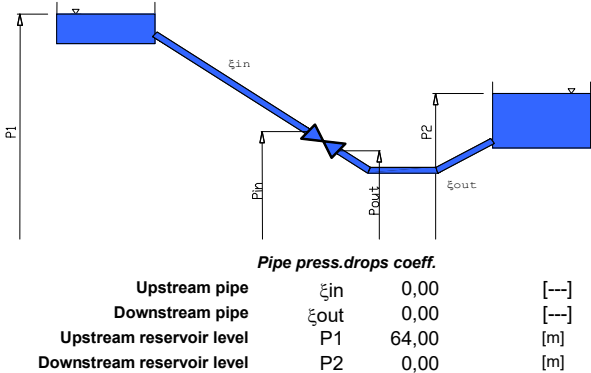


NEEDLE VALVE: flow analysis and cavitation check

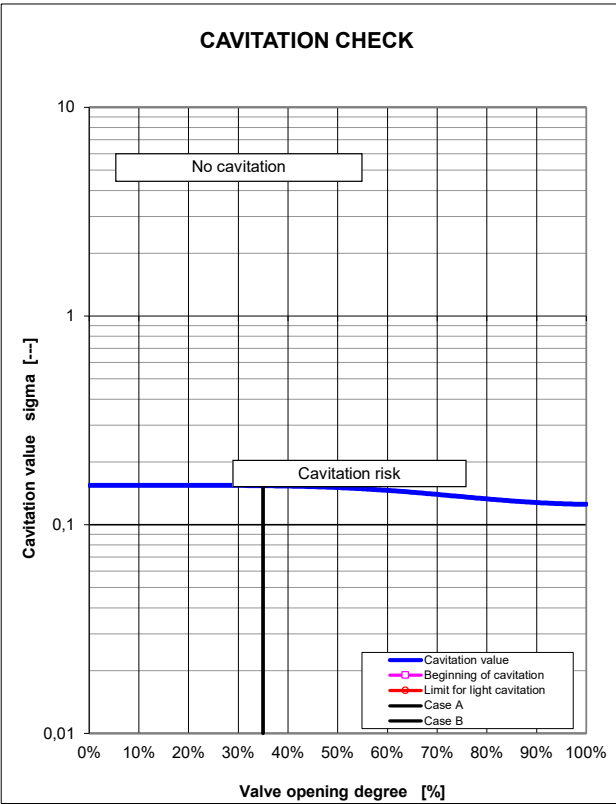
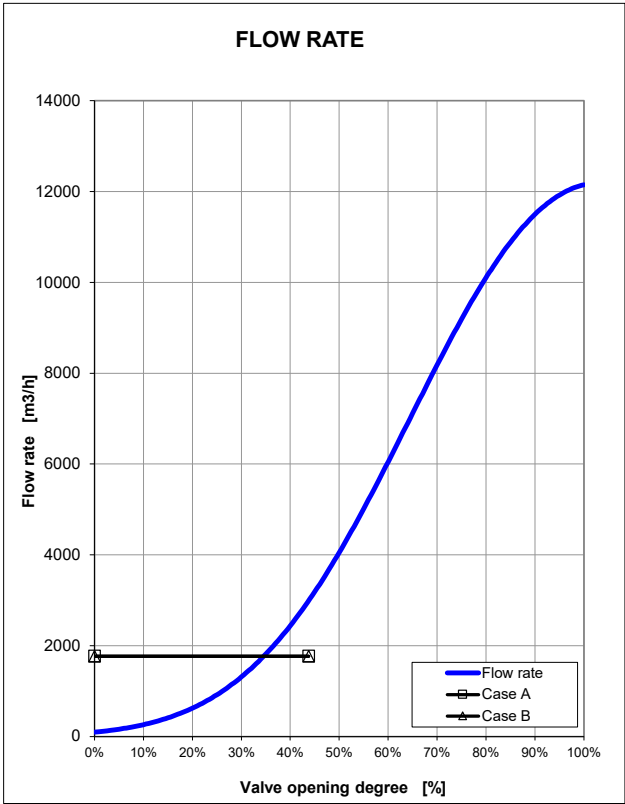
Upstream and downstream reservoirs at constant level

Valve specification			
Project	26_1623.		
Description	DN 500 PN 10 - Standard (C)		
Nom.diam. DN	500	▼	
Nom.press. PN	10	▼	
Anticavitation cylinder	Standard	▼	
	A	B	
Flow rate	Q	1767,1	1766,1 m ³ /h ▼
Flow rate	Q	490,9	490,6 l/s
Upstream pressure (dynamic)	P _{in}	64,00	64,00 [m]
Downstream pressure (dynamic)	P _{out} (*)	0,00	0,00 [m]
Pressure drop (valve)	ΔP _v	64,00	64,00 [m]
Flow velocity	v	2,50	2,50 [m/s]
Approx.valve opening	α	35%	35%
(*) Downstream the dissipating plate			

(*) Downstream the dissipating plate



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Valve pressure drops (valve 100% open)			
Pressure drops coefficient (100% open)	ξ	4,25	[---]
Flow coefficient (100% open)	Kvs	4803	[m ³ /h]
Pressure drops (100% open)	ΔP _{100%}	1,35	1,35 [m]
Dissipating plate (optional)	K _p	0	None
Pressure drops (diss.plate)	ΔP _p	0,00	0,00 [m]
Valve installation position	Horizontal		
Outlet jet vel.		4,22	4,21 [m/s]
Air intake	Yes		

