Digital Stormwater Management – PANDa & Water Folder

Paweł Licznar
Retencjapl
Gdansk, Wroclaw, Cracow Poland

Our motto

Water is one of the most valuable resources.

पानी तो सबसे क़ीमती संसाधनों में से एक है I

Pani to sabse kīmtī saṁsādhanõ ek hai.

We believe that today no one can afford to waste it.

हमको विश्वास है कि आजकल इसे बर्बाद करने का जोखिम कोई नहीं उठा सकता।

Hamko visvās hai ki ājkal use barbād karne kā jokhim koī naḥī uṭhā saktā.

Think different about rain, think different about stormwater, go digital and enjoy the water!

First step into digital stormwater management

POLSKI ATLAS NATĘŻEŃ DESZCZÓW PANDA

Fundusze Europejskie Inteligentny Rozwój

Unia Europejska Europejski Fundusz Rozwoju Regionalnego

Development and introduction of the Polish Atlas of Rainfall Intensities (PARIs - PANDa)

Narodowe Centrum Badań i Rozwoju

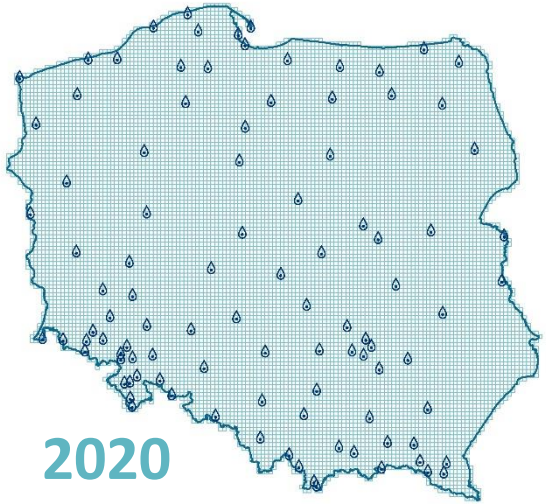
retencja.pl

IMGW

1) Rainfall digital database - 100 gauges (1986-2015)
2) Selection of maximum precipitation depths and best fitting distributions for DDF models
3) Geostatistical simulations and digital platform on web

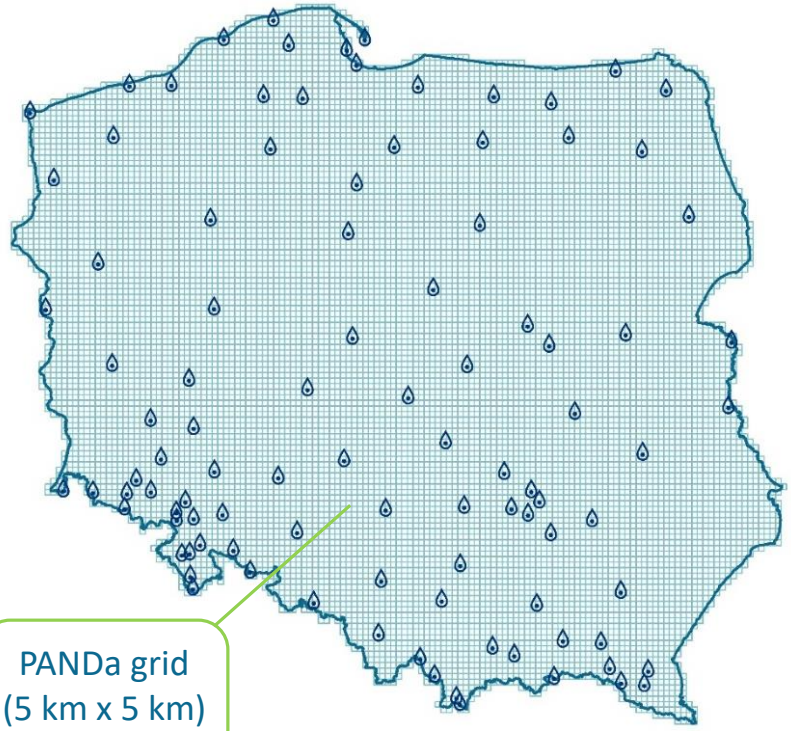
2016

2018

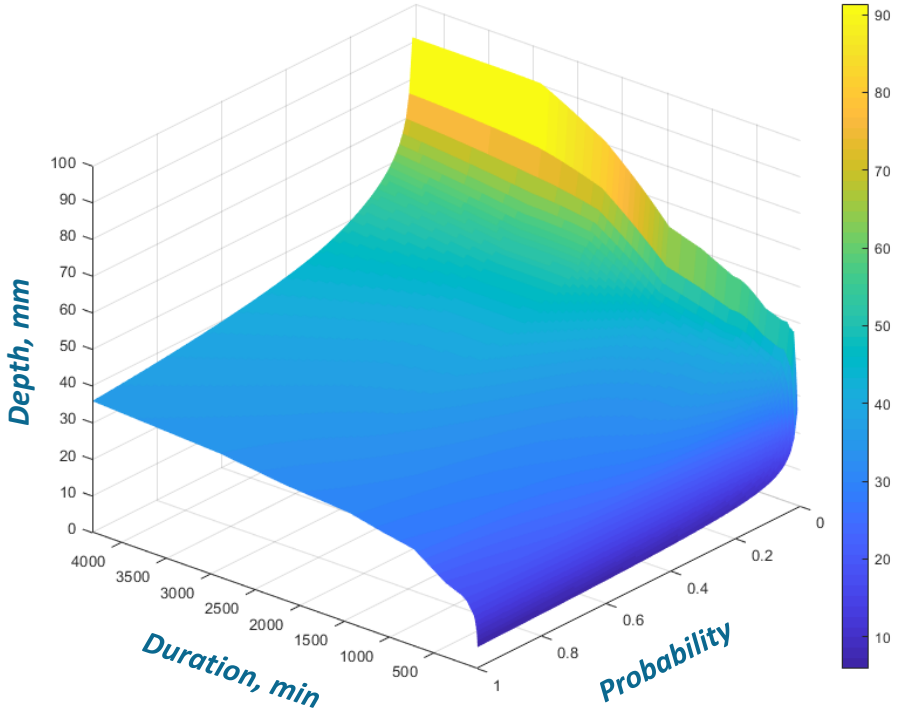


2020

Plethora of precipitation models and what next?

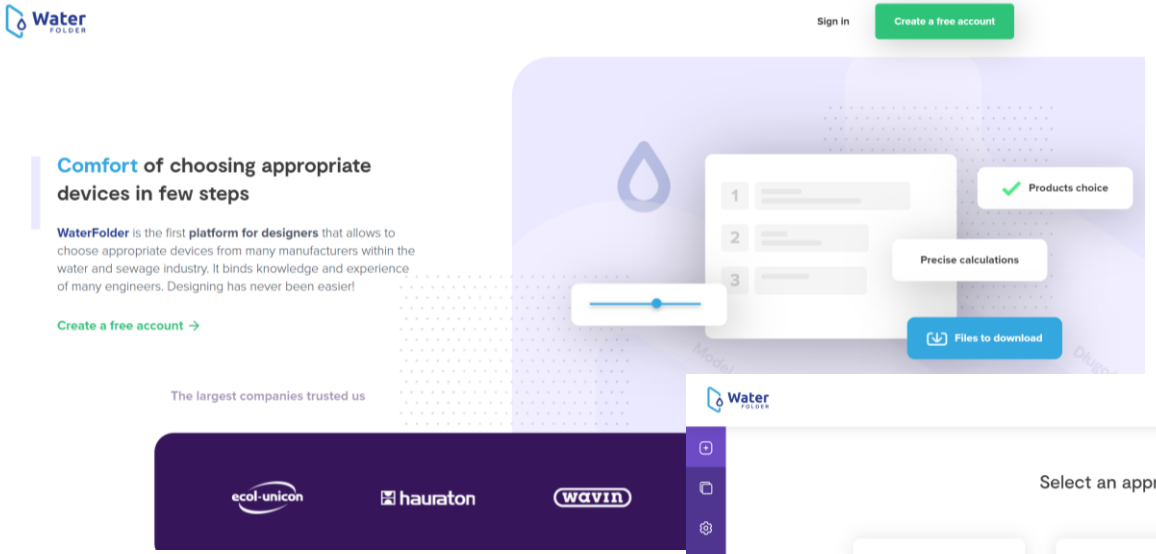


PANDa grid
(5 km x 5 km)
12885 pixels

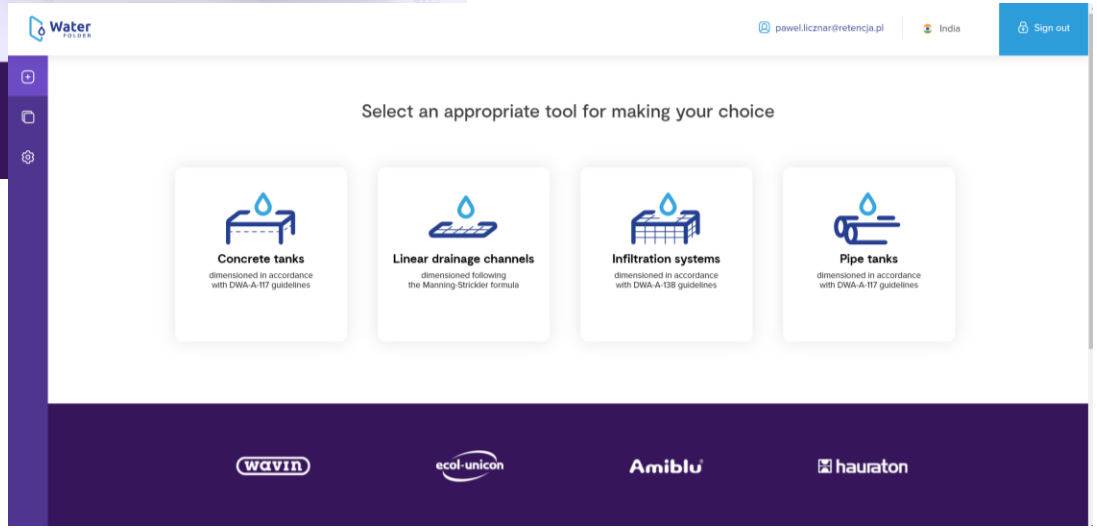


DDF models based on generalized Pareto distribution (GPD) for time durations from 5 do 4320 min

People need tools - digital tools - not models



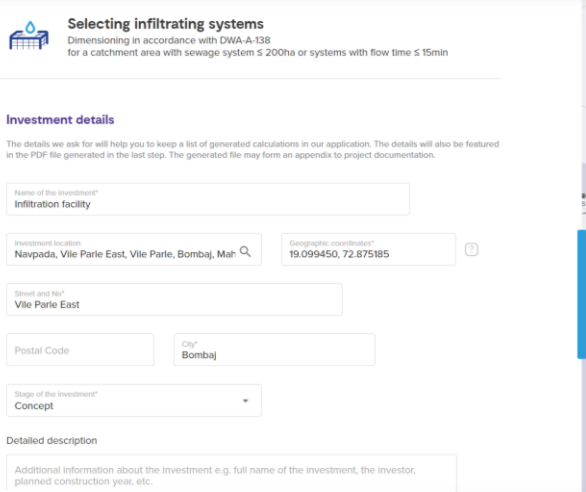
You can use
www.waterfolder.com
in Poland and **India**

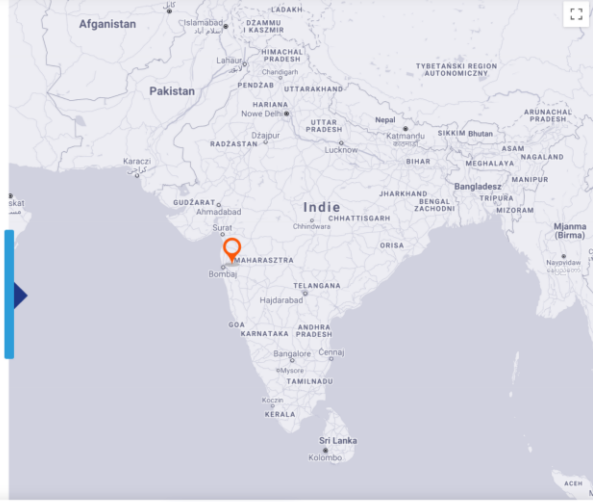


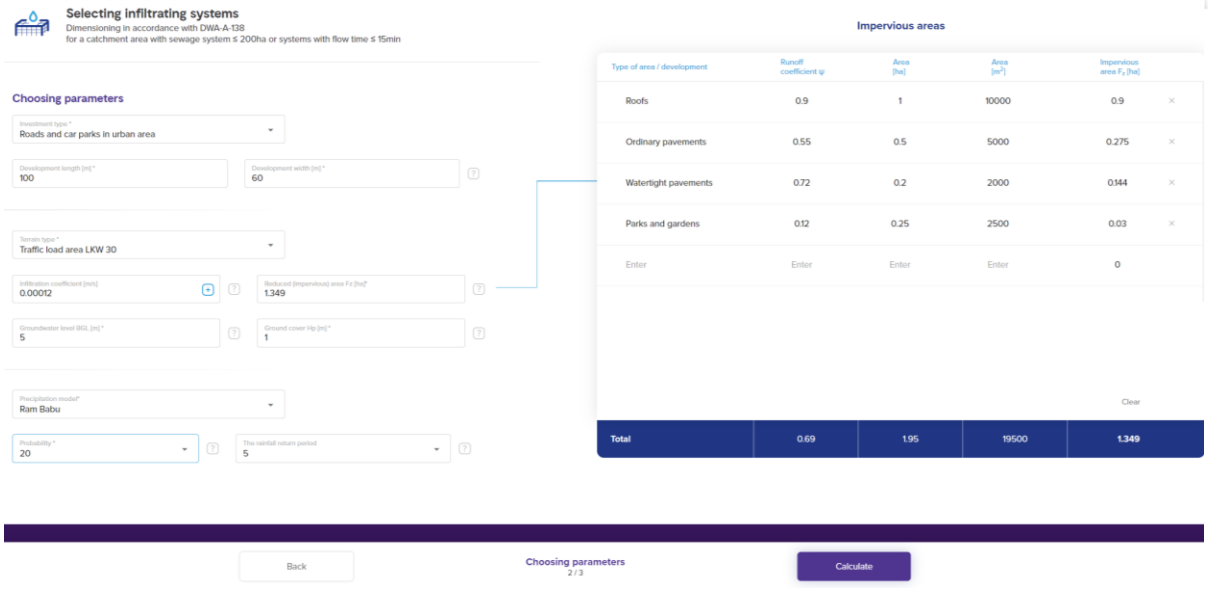
Please do not waste your time and create a free account at: www.waterfolder.com !

Let's see how it works?

Case study:
Underground infiltration system under parking lot by the Mumbai International Airport
मुंबई इंटरनॅशनल एयरपोर्ट







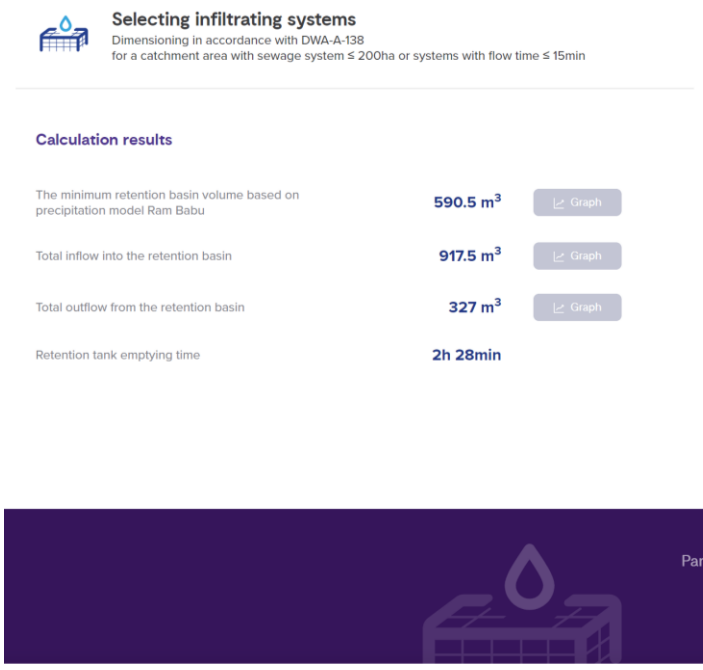
Step 1 Location on Google Map

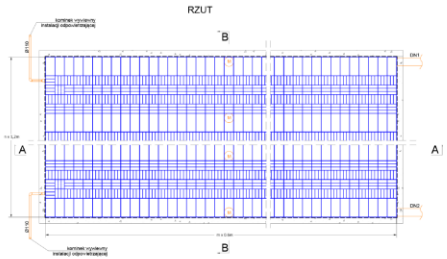
Step 2 Introduction of boundary design parameters, eg. infiltration coeff., surface outflow areas, runoff coeff., rainfall probab./freq., precipitation model:

Ram Babu Tejwani, K. K., Agarwal, M. C., and Bhushan, L. S. (1979), Rainfall intensity-duration-return period equations and nomographs of India. CS&WCRII, Indian Council for Agri. Res., (ICAR), Dehradun, India

Step 3 Calculation results and target solution selection →

Calculation results and target solution selection

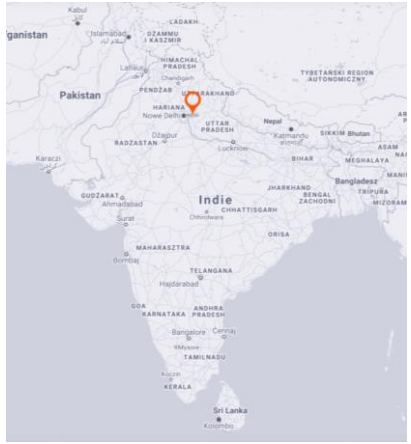




Yes, it is easy!
Please do not waste your time to only watch.
Try by yourself at: **www.waterfolder.com** !

Let’s design channel drainage

Case study: Centre for Science and Environment सेंटर फॉर साइंस एंड एनवायरमेंट



Choosing channel drainage systems

Dimensioning using the Manning-Strickler formula and laboratory measured values of corrective coefficients for maximum drainage length of 100 m.

Choosing parameters

Investment type *
Car park

Drainage channel length [m] *
50

Maximum load class *
C 250 class

Outflow type
free outflow

Reduced (impervious) area F_z [ha] *
0.05

Precipitation model*
Ram Babu Tejwani et al. (1979)

Rainfall duration [min] *
15

Probability*
50

The rainfall return period
2

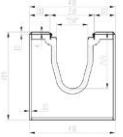
hauraton

Calculation results

Calculated flow 12.3 l/s

Dependence of proportional filling of the channel from the flow — Graph

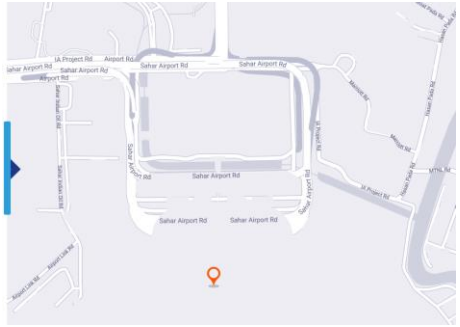
Set the maximum height and filling percentage for a channel drainage list

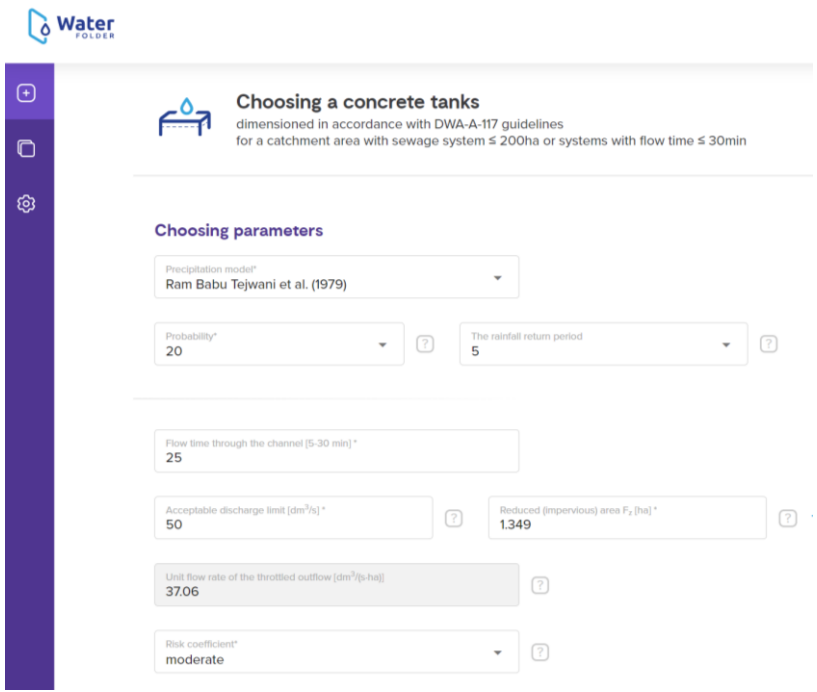


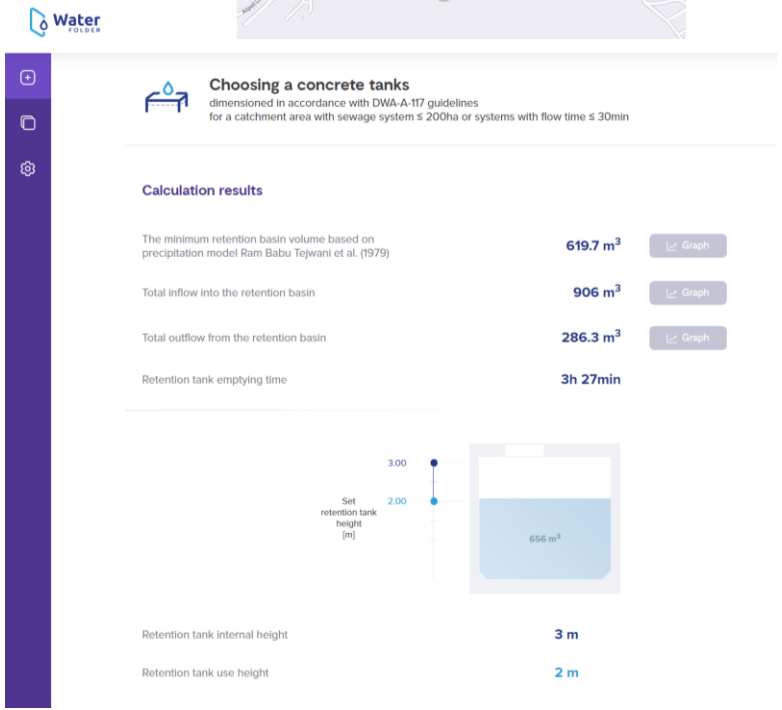
Schemat poglądowy rusztu

Let’s design stormwater retention tank

Case study:
Underground retention tank under parking lot by
the Mumbai International Airport मुंबई इंटरनॅशनल एयरपोर्ट



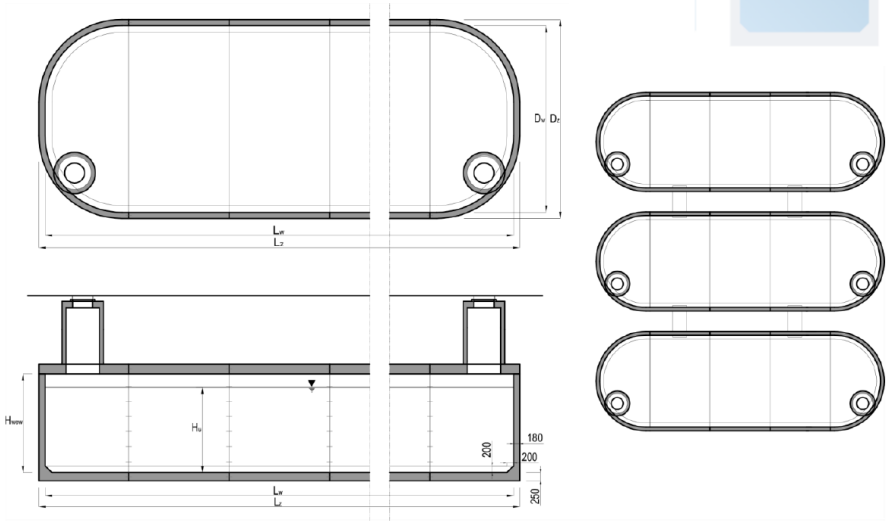




Flexible retention solutions

Choosing a concrete tanks

dimensioned in accordance with DWA-A-117 guidelines
for a catchment area with sewage system ≤ 200ha or systems with flow time ≤ 30min

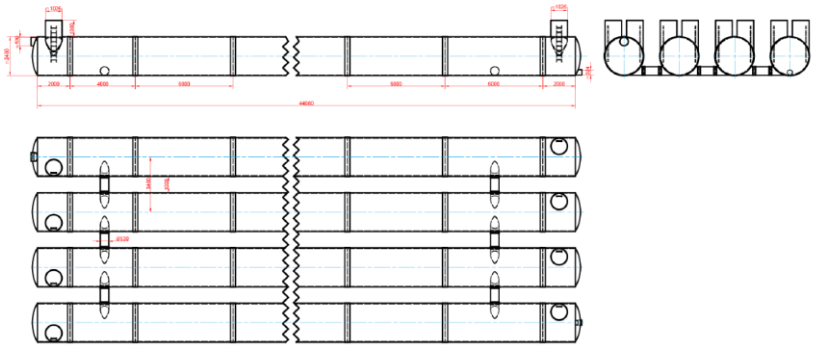


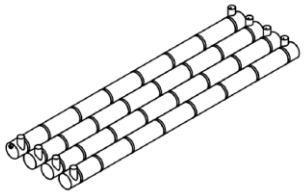
Hydrozone Basic

ecol-unicon

Selecting pipe tanks

dimensioning in accordance with DWA-A-117 guidelines
for a catchment area with sewage system ≤ 200ha or systems with flow time ≤ 30min





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Summary

1) We need more tools, digital tools than advanced precipitation models
2) Tools should be available for free on the Internet
3) We need to combine knowledge about precipitation with calculation algorithms and the know-how of producers
4) You can't change the world alone…

Please give us your feedback about WaterFolder India!

LET'S TALK

hello@waterfolder.com

+ 48 730 037 309

See you in Poland…


Thank you for your attention