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UNIVERSITY
OF ARCHITECTURE
CIVIL ENGINEERING
AND GEODESY

Winter School at UACEG

Topic: Hydraulic structures. Dams and reservoirs

Task for Students #5:

Bottom outlet capacity calculations and stilling basin design

Explanations and Example

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University of Nis

Strengthening of master curricula in water resources management
for the Western Balkans HEIs and stakeholders

Project number: 597888-EPP-1-2018-1-RS-EPPKA2-CBHE-JP

www.swarm.ni.ac.rs

Exercise #4

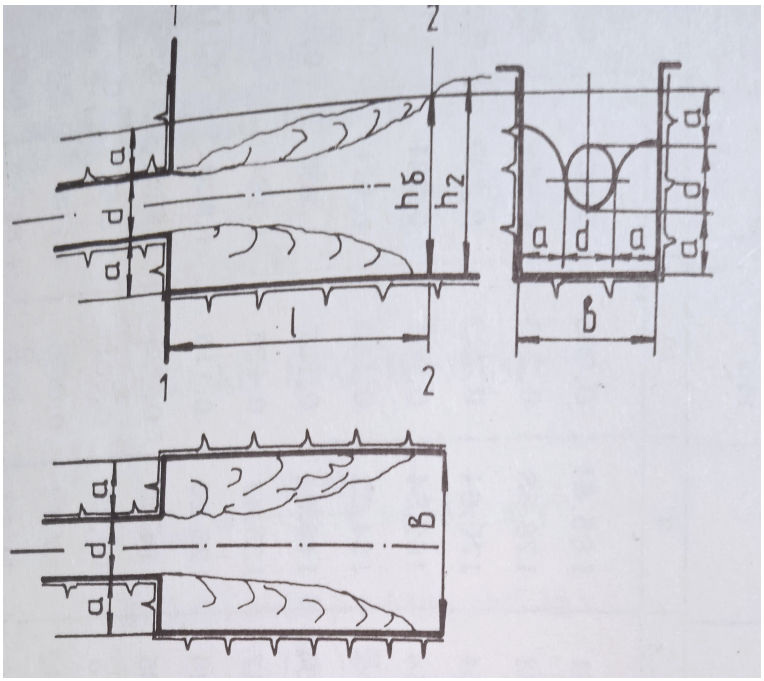
Input data:
Hmax=50 m

1) d=2 m

$$Q_{max} = \mu.F.\sqrt{2.g.H_{max}}$$

μ **= 0,75**

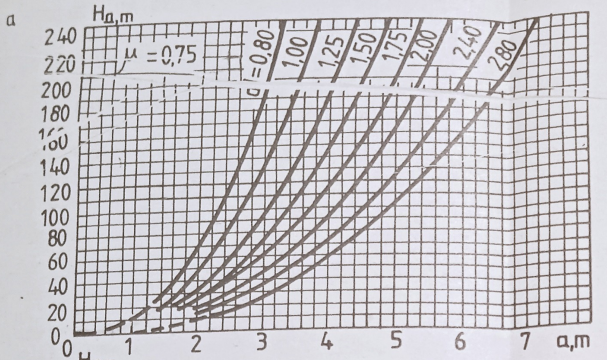
2) drow a rating curve
3) define the parameters of its stilling basin

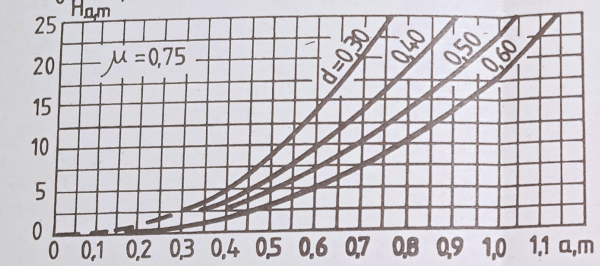


$$l=(9{,}60\div 13{,}40)\,a;$$
$$b=d+2a;$$
$$h_6=d+2a.$$

a = 3

а


Hд,m
μ =0,75
d=0,80
1,00
1,25
1,50
1,75
2,00
2,40
2,80
240
220
200
180
160
140
120
100
80
60
40
20
0
1
2
3
4
5
6
7
a,m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0,4
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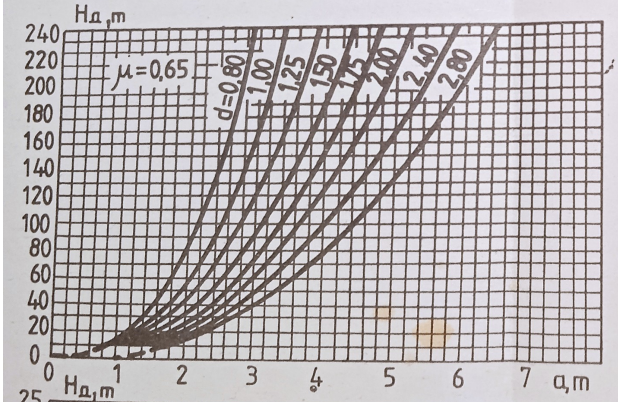
0,6
0,7
0,8
0,9
1,0
1,1
a,m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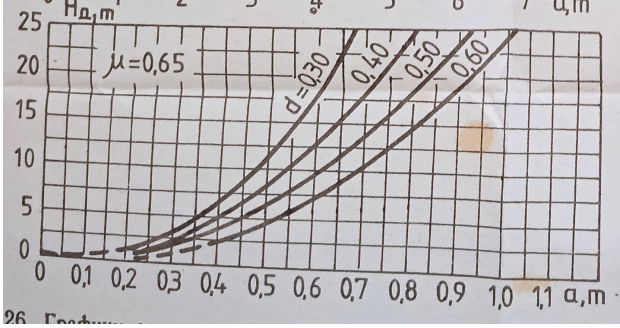
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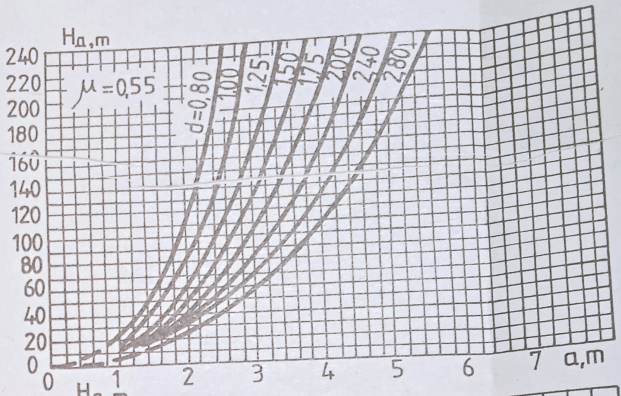
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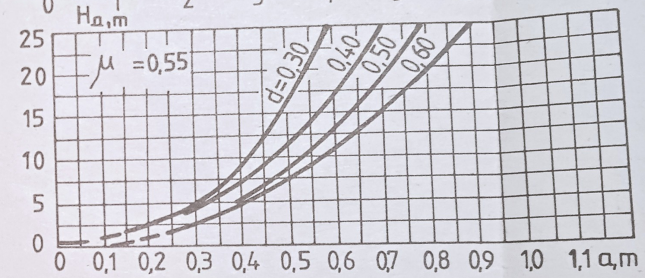
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