Hidraulička analiza funkcioniranja vodospremnika s preljevom i ispustom za vremenski promjenjiv dotok

Galić, Mila

Undergraduate thesis / Završni rad

2021

Degree Grantor / Ustanova koja je dodijelila akademski / stručni stupanj:
University of Split, Faculty of Civil Engineering, Architecture and Geodesy / Sveučilište u Splitu, Fakultet građevinarstva, arhitekture i geodezije

Permanent link / Trajna poveznica: https://urn.nsk.hr/urn:nbn:hr:123:303022

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Download date / Datum preuzimanja: **2024-09-09**

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SVEUČILIŠTE U SPLITU

FAKULTET GRAĐEVINARSTVA, ARHITEKTURE I GEODEZIJE

ZAVRŠNI RAD

Mila Galić

Split, srpanj 2021.

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Završni rad

STUDIJ:	**PREDDIPLOMSKI SVEUČILIŠNI STUDIJ GRAĐEVINARSTVA**
KANDIDAT:	**Mila Galić**
BROJ INDEKSA:	**4564**
KATEDRA:	**Katedra za hidromehaniku i hidrauliku**
PREDMET:	**Hidromehanika**

ZADATAK ZA ZAVRŠNI RAD

Tema: Hidraulička analiza funkcioniranja vodospremnika s preljevom i ispustom za vremenski promjenjiv dotok

Opis zadatka: Potrebno je izvesti proračun razine vodostaja ovisno o vremenu, te ga riješiti preko numeričke integracije mješovitim postupkom.

Zadatak treba riješiti za 3 različite širine preljeva, te istražiti utjecaj veličine vremenskog koraka na kvalitetu rješenja.

Rezultate prikazati grafički i tablično (proračun provesti u EXCELL-u)

U Splitu, 15. lipnja 2021.

Voditelj Završnog rada:

 Doc. dr. sc. Davor Bojanić, dipl.ing.građ.

IZJAVA

Završni rad sam izradila samostalno, u suradnji s mentorom poštivala sam sve građevinske propise iz područja građevinarstva. Fakultet građevinarstva arhitekture i geodezije polaže sva prava intelektualnog vlasništva na ovaj rad.

<p style="text-align: right">_____.</p>

<p style="text-align: right">Mila Galić</p>

U Splitu,_____2021.

Hidraulička analiza funkcioniranja vodospremnika s preljevom i ispustom za vremenski promjenjiv dotok

Sažetak:

U ovom radu je, za zadani otvoreni vodospremnik s preljevom i ispustom, izvršen proračun razine vode u vodospremniku u funkciji vremena, numeričkom integracijom mješovitim postupkom.

Zadatak je riješen za 3 različite širine preljeva te je istražen utjecaj veličine vremenskog koraka na kvalitetu rješenja.

Ključne riječi:

Vremenski promjenjiv dotok, numerička integracija, mješoviti postupak, otvoreni spremnik, preljev…

The hydraulic analysis of reservoir functioning with overflow and discharge for a time-varying inflow

Abstract:

In this paper, for a given open reservoir with overflow and discharge, the water level is calculated depending on the time by numerical integration by a mixed procedure.

The problem was solved for 3 different overflow widths and the influence of the time step size on the solution quality was investigated.

Key words: time-varying inflow, numerical integration, mixed process, open tank, overflow…

SADRŽAJ

Popis slika :

1. Zadatak za završni rad:

Zadan je otvoreni spremnik čija je površina promjenjiva ovisno o vodostaju u njemu. U spremnik se ulijeva protok vode koji je funkcija vremena. Iz spremnika voda istječe slobodno u atmosferu kroz kratku cijev. Na spremniku, na koti z_p postoji preljev širine Bp. Preko preljeva se prelijeva višak vode iz spremnika.

Studentica će postaviti sve potrebne jednadžbe koje opisuju zadani problem. Zadatak će riješiti numeričkom integracijom mješovitim postupkom.

Zadatak treba riješiti za 3 varijante širine preljeva. Potrebno je analizirati utjecaj veličine vremenskog koraka na kvalitetu rješenja.

Za rješavanje koristiti tablični kalkulator (EXCELL). Rezultate prikazati grafički i tablično.
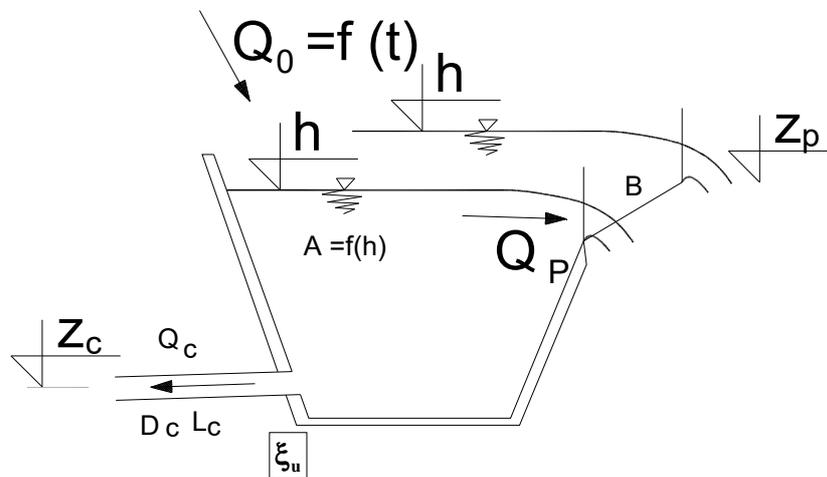
Slika 1. Vodospremnik s preljevom i ispustom

Zadano je:
Površina vodospremnika u funkciji nadmorske visine:

h (m n.m.)	A (m^2)
90	300
100	450
105	800
110	1200

Dotok u vodospremnik:

t (s)	Q_0 (m³/s)
0,00	1,50
200,00	2,30
300,00	8,00
500,00	10,00
900,00	3,00
1200,00	1,50
10000,00	1,50

D_c=0.6 (m)
L_c=50.0 (m)
$\varepsilon = 0.001\ (m)$
$\nu = 0.00000131\ (m^2/s)$
$\xi_u = 0.5$
B_1=2.0 (m); B_2=3.0 (m); B_3=4.0 (m)
$z_p = 100.00\ (m\ n.m.)$
Θ=0.5
L=1.1
Početna razina vode u prvom spremniku je 99.50 (m n.m.).

Split, 15. lipnja 2021.

Doc. dr. sc. Davor Bojanić

2. Tehnički opis:

2.1. Uvod:

Zadatkom je zadan otvoreni spremnik čija je površina definirana u funkciji nadmorske visine. Iz otvorenog spremnika voda istječe slobodno u atmosferu kroz kratku cijev, a ostatak vode se počinje prelijevati kada razina vode u vodospremniku prijeđe visinu krune preljevnog praga. Na temelju zadanih podataka istražen je utjecaj veličine vremenskog koraka na kvalitetu rješenja za tri varijante dužine preljevnog praga.

Zadano je:

- Površina vodospremnika u funkciji nadmorske visine
- Dotok u funkciji vremena
- Početna razina vode u vodospremniku
- Kota krune preljevnog praga
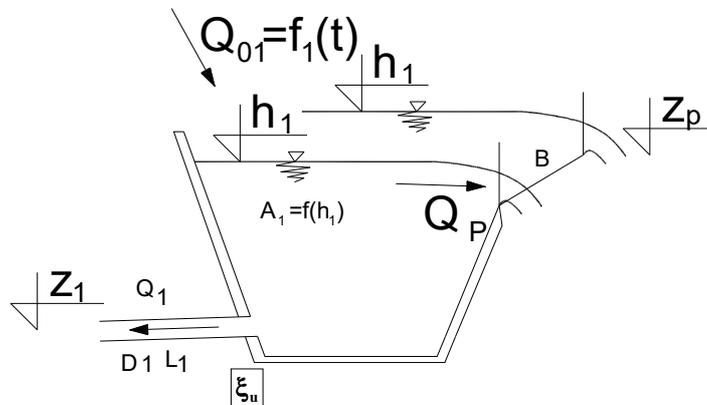
Slika 1 Zadani vodospremnik s ispusnom cijevi i preljevom

2.2. Značajne geometrijske i hidrauličke karakteristike

Zadani sustav sastoji se od otvorenog spremnika s dotokom promjenjivim u vremenu, a pri dnu spremnika nalazi se kratka cijev kroz koju voda slobodno istječe u atmosferu. Površina vodospremnika se mijenja ovisno o nadmorskoj visini. Na nadmorskoj visini h=90.0 (m n.m.) površina vodospremnika iznosi A=300 (m^2), za h=100.0 (m n.m.) površina iznosi A=450 (m^2), za h=105.0 (m n.m.) površina iznosi A=800 (m^2) i za h=110.0 (m n.m.) površina vodospremnika iznosi A=1200 (m^2). Kruna preljevnog praga nalazi se na

koti Zp=100 (m n.m.). Cijev kroz koju istječe voda nalazi se na koti Z_1= 90 (m n.m.). Duljina cijevi iznosi L_1=50 (m), a dijametar cijevi iznosi D_c=0.6 (m).

Za koeficijent lokalnog gubitka energije na ulazu uzeta je vrijednost ξu=0.5. Zadatkom je zadana apsolutna pogonska hidraulička hrapavost u iznosu od ε=0.001 (m), pomoću koje se izračunavaju linijski gubitci energije. Također je zadana vrijednost i kinematičkog koeficijenta viskoznosti tekućine $\nu = 0.00000131\ (m^2/s)$.

3. Proračun vodospremnika:

3.1.   Postupak proračuna vodospremnika:

Početna razina vode u vodospremniku je 99.50 (m n.m.).

1. Jednadžba kontinuiteta za vodospremnik je:

$$A \cdot \frac{dh}{dt} = Q_0 - Q_1 - Q_p \qquad (1)$$

Nakon separacije varijabli dobije se:

$$dh = \frac{Q_0 - Q_1 - Q_p}{A} \cdot dt \qquad (2)$$

Numerička integracija mješovitim postupkom daje:

$$h^{k+1} = h^k + \frac{Q_0^k - Q_1^k - Q_p^k}{A^k} \cdot (1 - \vartheta) \cdot \Delta t + \frac{Q_0^{k+1} - Q_1^{k+1} - Q_p^{k+1}}{A^{k+1}} \cdot \vartheta \cdot \Delta t \qquad (3)$$

Pri čemu je A površina spremnika, Q_0 je dotok, Q_1 je protok kroz odvodnu cijev, dok je Q_p protok preko preljevnog praga.
h je vodostaj u vodospremniku.
Oznake h^k, Q_0^k, Q_1^k, Q_p^k i A^k odnose se na vrijednosti na početku vremenskog intervala. Oznake h^{k+1}, Q_0^{k+1}, Q_1^{k+1}, Q_p^{k+1} i A^{k+1} odnose se na vrijednosti na kraju vremenskog intervala. Vodostaj na kraju intervala odredit će se iz izraza (3).

2. Preljevni protok računa se prema sljedećem:

$$\text{ako je h>}z_p, \ Q_p = m \cdot B \cdot \sqrt{2g} \cdot (h - z_P)^{3/2} \qquad (4)$$
$$\text{ako je h=}z_p, \ Q_p = 0.00 \qquad (5)$$
$$\text{ako je h<}z_p, \ Q_p = 0.00 \qquad (6)$$

Ukoliko je vodostaj u spremniku jednak ili manji od kote preljevnog praga, onda je preljevni protok jednak nuli (5, 6), a ukoliko je vodostaj u spremniku veći od kote krune preljevnog praga, onda se preljevni protok računa po datoj izrazu (4).

3. Protok kroz cijev:

$$Q_1 = \frac{1}{\sqrt{\xi_u + \lambda \cdot \frac{L_1}{D_1} + \alpha}} \sqrt{2g \cdot (h - z_1)} \cdot D_1^2 \cdot \frac{\pi}{4} \qquad (7)$$

ako je h=z$_1$

$$Q_1 = 0.0 \qquad (8)$$

ako je h<z$_1$

$$Q_1 = 0.0 \frac{\pi}{4} \qquad (9)$$

Jednadžba (3) je nelinearna jednadžba s jednom nepoznanicom. Traži se h^{k+1}, tj. vodostaj na kraju vremenskog koraka.

Primjenjuje se Newtonova metoda za rješavanje nelinearnih jednadžbi.
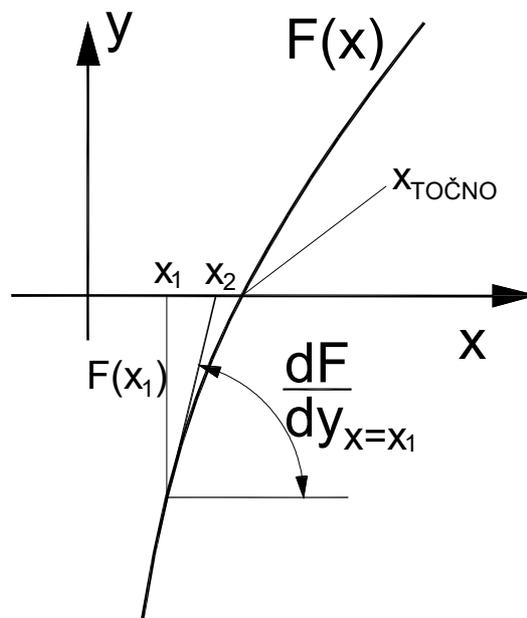
Slika 2 Realizacija Newtonove metode

Neka je zadana funkcija F(x). Tražimo onaj x (x$_{\text{točno}}$) za kojeg vrijedi da je F(x)=0.0 Postupak je takav da se odabere vrijednost x$_1$. Za tu vrijednost x$_1$ izračuna se vrijednost funkcije u toj točki F(x$_1$) i vrijednost derivacije u toj točki. Novu vrijednost za x, tj. x$_2$ koja će biti bliže točnom rješenju dobit će se iz sljedećeg:

$$(x_2 - x_1) \cdot \frac{dF}{dy}_{x=x_1} = -F(x_1) \qquad (10)$$

Odavde slijedi:

$$x_2 = x_1 - \frac{F(x_1)}{\frac{dF}{dy}_{x=x_1}} \qquad (11)$$

Time je određen postupak postupnog približavanja točnom rješenju.

Formira se funkcija F. Ovdje je nezavisna varijabla vodostaj h^{k+1}.

$$F = h^{k+1} - h^k - \frac{Q_0^k - Q_1^k - Q_p^k}{A^k} \cdot (1 - \vartheta) \cdot \Delta t - \frac{Q_0^{k+1} - Q_1^{k+1} - Q_p^{k+1}}{A^{k+1}} \cdot \vartheta \cdot \Delta t = 0 \qquad (12)$$

$$Q_1^k = \frac{1}{\sqrt{\xi_u + \lambda^k \cdot \frac{L_1}{D_1} + \alpha}} \cdot \sqrt{2g \cdot (h^k - z_1)} \cdot D_1^2 \cdot \frac{\pi}{4} \qquad (13)$$

$$Q_1^{k+1} = \frac{1}{\sqrt{\xi_u + \lambda^{k+1} \cdot \frac{L_1}{D_1} + \alpha}} \cdot \sqrt{2g \cdot (h^{k+1} - z_1)} \cdot D_1^2 \cdot \frac{\pi}{4} \qquad (14)$$

$$\text{ako je } h^k > z_p, \quad Q_p^k = m \cdot B \cdot \sqrt{2g} \cdot \left(h^k - z_P\right)^{3/2} \qquad (15)$$
$$\text{ako je } h^k = z_p, \quad Q_p^k = 0.00 \qquad (16)$$
$$\text{ako je } h^k < z_p, \quad Q_p^k = 0.00 \qquad (17)$$

$$\text{ako je } h^{k+1} > z_p, \quad Q_p^{k+1} = m \cdot B \cdot \sqrt{2g} \cdot \left(h^{k+1} - z_P\right)^{3/2} \qquad (18)$$

$$\text{ako je } h^{k+1} = z_p, \quad Q_p^{k+1} = 0.00 \qquad (19)$$
$$\text{ako je } h^{k+1} < z_p, \quad Q_p^{k+1} = 0.00 \qquad (20)$$

Derivacija funkcije F po h^{k+1} je:

$$\frac{dF}{dh^{k+1}} = 1.0 + \frac{\vartheta \cdot \Delta t}{A^{k+1}} \cdot \left(\frac{dQ_1^{k+1}}{dh^{k+1}} + \frac{dQ_p^{k+1}}{dh^{k+1}}\right) \qquad (21)$$

$$\frac{dQ_1^{k+1}}{dh^{k+1}} = \frac{1}{\sqrt{\xi_u + \lambda^{k+1} \cdot \frac{L_1}{D_1} + \alpha}} \sqrt{2g} \cdot D_1^2 \cdot \frac{\pi}{4} \cdot \frac{1}{2 \cdot \sqrt{(h^{k+1} - z_1)}} \qquad (22)$$

$$\text{ako je } h^{k+1} > z_p, \quad \frac{dQ_p^{k+1}}{dh^{k+1}} = m \cdot B \cdot \sqrt{2g} \cdot \frac{3}{2} \cdot \left(h^{k+1} - z_P\right)^{1/2} \qquad (23)$$
$$\text{ako je } h^{k+1} = z_p, \quad \frac{dQ_p^{k+1}}{dh^{k+1}} = 0.00 \qquad (24)$$
$$\text{ako je } h^{k+1} < z_p, \quad \frac{dQ_p^{k+1}}{dh^{k+1}} = 0.00 \qquad (25)$$

$$h^{k+1,n} = h^{k+1} + \Delta h^{k+1} \qquad (26)$$

$$h^{k+1,n} = h^{k+1} - \frac{F}{\frac{dF}{dh^{k+1}}} \qquad (27)$$

Postupak se ponavlja sve dok prirast $\left(\frac{-F}{\frac{dF}{dh^{k+1}}}\right)$ po apsolutnoj vrijednosti ne bude manji od zadane točnosti. Kad se to postigne ide se na novi vremenski interval.

3.2. Rezultati proračuna vodostaja u vodospremi

Rezultati su dobiveni rješenjem nelinearne jednadžbe opisane u točki 3.1. Rješenje je provedeno u programu " Microsoft Excell" na sljedeći način:

Numeričkom integracijom mješovitim postupkom dobiveni su sljedeći podaci o razini vode u vodospremniku, protoku kroz kratku cijev, te preljevnom protoku, ovisno o vremenu, za zadane različite širine preljevnog praga ($B_1 = 2m, B_2 = 3m, B_3 = 4m$).

3.2.1. Rezultati za zadane širine preljevnih pragova

U tablici 1. prikazani su rezultati proračuna za dužinu preljevnog praga od 2 (m), i vremenski korak od 5 (s).

U tablici 2. prikazani su rezultati proračuna za dužinu preljevnog praga od 3 (m), i vremenski korak od 5 (s).

U tablici 3. prikazani su rezultati proračuna za dužinu preljevnog praga od 4 (m), i vremenski korak od 5 (s).

Tablica 1 Rezultati proračuna za dužinu preljevnog praga $B_1 = 2\ m$

t(s)	h(m.n.m.)	Qo (m^3/s)	Qp (m^3/s)	Q1 (m^3/s)
0	99,5000	1,5000	0,0000	2,0739
5	99,4936	1,5200	0,0000	2,0732
10	99,4875	1,5400	0,0000	2,0725
15	99,4816	1,5600	0,0000	2,0719
20	99,4759	1,5800	0,0000	2,0713
25	99,4705	1,6000	0,0000	2,0707
30	99,4653	1,6200	0,0000	2,0701
35	99,4603	1,6400	0,0000	2,0695
40	99,4556	1,6600	0,0000	2,0690
45	99,4510	1,6800	0,0000	2,0685
50	99,4468	1,7000	0,0000	2,0681
55	99,4427	1,7200	0,0000	2,0676
60	99,4389	1,7400	0,0000	2,0672
65	99,4353	1,7600	0,0000	2,0668
70	99,4319	1,7800	0,0000	2,0664
75	99,4288	1,8000	0,0000	2,0661
80	99,4259	1,8200	0,0000	2,0658
85	99,4232	1,8400	0,0000	2,0655
90	99,4208	1,8600	0,0000	2,0652
95	99,4186	1,8800	0,0000	2,0650
100	99,4166	1,9000	0,0000	2,0648
105	99,4149	1,9200	0,0000	2,0646
110	99,4133	1,9400	0,0000	2,0644
115	99,4120	1,9600	0,0000	2,0643
120	99,4110	1,9800	0,0000	2,0641
125	99,4101	2,0000	0,0000	2,0640
130	99,4095	2,0200	0,0000	2,0640
135	99,4091	2,0400	0,0000	2,0639
140	99,4090	2,0600	0,0000	2,0639
145	99,4090	2,0800	0,0000	2,0639
150	99,4093	2,1000	0,0000	2,0640
155	99,4099	2,1200	0,0000	2,0640
160	99,4106	2,1400	0,0000	2,0641
165	99,4116	2,1600	0,0000	2,0642
170	99,4128	2,1800	0,0000	2,0643
175	99,4142	2,2000	0,0000	2,0645
180	99,4159	2,2200	0,0000	2,0647
185	99,4177	2,2400	0,0000	2,0649
190	99,4198	2,2600	0,0000	2,0651
195	99,4221	2,2800	0,0000	2,0654
200	99,4247	2,3000	0,0000	2,0656
205	99,4289	2,5850	0,0000	2,0661
210	99,4364	2,8700	0,0000	2,0669
215	99,4471	3,1550	0,0000	2,0681
220	99,4610	3,4400	0,0000	2,0696
225	99,4781	3,7250	0,0000	2,0715
230	99,4984	4,0100	0,0000	2,0737
235	99,5219	4,2950	0,0000	2,0763
240	99,5485	4,5800	0,0000	2,0792
245	99,5783	4,8650	0,0000	2,0824
250	99,6112	5,1500	0,0000	2,0860
255	99,6473	5,4350	0,0000	2,0899
260	99,6864	5,7200	0,0000	2,0942
265	99,7287	6,0050	0,0000	2,0987
270	99,7740	6,2900	0,0000	2,1036
275	99,8224	6,5750	0,0000	2,1088
280	99,8739	6,8600	0,0000	2,1143
285	99,9283	7,1450	0,0000	2,1202
290	99,9858	7,4300	0,0000	2,1263
295	100,0459	7,7150	0,0348	2,1327
300	100,1078	8,0000	0,1254	2,1392
305	100,1698	8,0500	0,2478	2,1458
310	100,2302	8,1000	0,3913	2,1522
315	100,2889	8,1500	0,5503	2,1583
320	100,3459	8,2000	0,7208	2,1643
325	100,4010	8,2500	0,8997	2,1701
330	100,4542	8,3000	1,0847	2,1756
335	100,5056	8,3500	1,2738	2,1810
340	100,5551	8,4000	1,4654	2,1861
345	100,6027	8,4500	1,6581	2,1910
350	100,6486	8,5000	1,8508	2,1958
355	100,6926	8,5500	2,0427	2,2003
360	100,7350	8,6000	2,2329	2,2047
365	100,7757	8,6500	2,4208	2,2088
370	100,8147	8,7000	2,6060	2,2128
375	100,8522	8,7500	2,7880	2,2167
380	100,8883	8,8000	2,9665	2,2204
385	100,9228	8,8500	3,1414	2,2239
390	100,9560	8,9000	3,3123	2,2273
395	100,9879	8,9500	3,4792	2,2305
400	101,0184	9,0000	3,6421	2,2336
405	101,0478	9,0500	3,8008	2,2366
410	101,0760	9,1000	3,9553	2,2394
415	101,1032	9,1500	4,1058	2,2422
420	101,1292	9,2000	4,2521	2,2448
425	101,1543	9,2500	4,3944	2,2473
430	101,1784	9,3000	4,5328	2,2498
435	101,2016	9,3500	4,6673	2,2521
440	101,2239	9,4000	4,7980	2,2544
445	101,2454	9,4500	4,9251	2,2565
450	101,2662	9,5000	5,0486	2,2586
455	101,2861	9,5500	5,1686	2,2606
460	101,3054	9,6000	5,2854	2,2625
465	101,3241	9,6500	5,3989	2,2644
470	101,3421	9,7000	5,5094	2,2662
475	101,3595	9,7500	5,6168	2,2679
480	101,3763	9,8000	5,7215	2,2696
485	101,3926	9,8500	5,8234	2,2712
490	101,4084	9,9000	5,9227	2,2728
495	101,4237	9,9500	6,0194	2,2743
500	101,4385	10,0000	6,1138	2,2758
505	101,4523	9,9125	6,2020	2,2772
510	101,4645	9,8250	6,2805	2,2784
515	101,4753	9,7375	6,3497	2,2795
520	101,4846	9,6500	6,4101	2,2804
525	101,4926	9,5625	6,4621	2,2812
530	101,4994	9,4750	6,5063	2,2819
535	101,5051	9,3875	6,5429	2,2824
540	101,5096	9,3000	6,5725	2,2829
545	101,5131	9,2125	6,5954	2,2832
550	101,5156	9,1250	6,6119	2,2835
555	101,5172	9,0375	6,6225	2,2836
560	101,5180	8,9500	6,6276	2,2837
565	101,5180	8,8625	6,6273	2,2837
570	101,5172	8,7750	6,6220	2,2836
575	101,5156	8,6875	6,6120	2,2835
580	101,5134	8,6000	6,5976	2,2833
585	101,5106	8,5125	6,5791	2,2830
590	101,5072	8,4250	6,5567	2,2826
595	101,5032	8,3375	6,5306	2,2822
600	101,4986	8,2500	6,5010	2,2818
605	101,4936	8,1625	6,4682	2,2813
610	101,4881	8,0750	6,4323	2,2807
615	101,4821	7,9875	6,3936	2,2801
620	101,4757	7,9000	6,3522	2,2795
625	101,4689	7,8125	6,3083	2,2788
630	101,4617	7,7250	6,2620	2,2781
635	101,4541	7,6375	6,2135	2,2774
640	101,4462	7,5500	6,1630	2,2766
645	101,4380	7,4625	6,1104	2,2758
650	101,4294	7,3750	6,0561	2,2749
655	101,4206	7,2875	6,0000	2,2740
660	101,4115	7,2000	5,9424	2,2731
665	101,4021	7,1125	5,8832	2,2722
670	101,3925	7,0250	5,8227	2,2712
675	101,3826	6,9375	5,7608	2,2702
680	101,3725	6,8500	5,6977	2,2692
685	101,3621	6,7625	5,6335	2,2682
690	101,3516	6,6750	5,5682	2,2671
695	101,3408	6,5875	5,5019	2,2661
700	101,3299	6,5000	5,4346	2,2650
705	101,3188	6,4125	5,3665	2,2639
710	101,3074	6,3250	5,2976	2,2627
715	101,2960	6,2375	5,2279	2,2616
720	101,2843	6,1500	5,1575	2,2604
725	101,2725	6,0625	5,0864	2,2592
730	101,2605	5,9750	5,0148	2,2580
735	101,2484	5,8875	4,9426	2,2568
740	101,2361	5,8000	4,8698	2,2556
745	101,2237	5,7125	4,7966	2,2543
750	101,2111	5,6250	4,7229	2,2531
755	101,1984	5,5375	4,6488	2,2518
760	101,1856	5,4500	4,5744	2,2505

Tablica 1- nastavak 1 - Rezultati proračuna za dužinu preljevnog praga $B_1 = 2\ m$

t(s)	h(m.n.m.)	Qo (m³/s)	Qp (m³/s)	Q1 (m³/s)	t(s)	h(m.n.m.)	Qo (m³/s)	Qp (m³/s)	Q1 (m³/s)	t(s)	h(m.n.m.)	Qo (m³/s)	Qp (m³/s)	Q1 (m³/s)
765	101,1726	5,3625	4,4996	2,2492	1115	100,3057	1,9250	0,5990	2,1601	1465	99,7701	1,5000	0,0000	2,1032
770	101,1595	5,2750	4,4244	2,2479	1120	100,2969	1,9000	0,5732	2,1592	1470	99,7634	1,5000	0,0000	2,1025
775	101,1463	5,1875	4,3490	2,2465	1125	100,2880	1,8750	0,5478	2,1583	1475	99,7566	1,5000	0,0000	2,1017
780	101,1330	5,1000	4,2733	2,2452	1130	100,2792	1,8500	0,5227	2,1573	1480	99,7499	1,5000	0,0000	2,1010
785	101,1195	5,0125	4,1974	2,2438	1135	100,2703	1,8250	0,4981	2,1564	1485	99,7431	1,5000	0,0000	2,1003
790	101,1059	4,9250	4,1212	2,2425	1140	100,2615	1,8000	0,4738	2,1555	1490	99,7364	1,5000	0,0000	2,0996
795	101,0922	4,8375	4,0449	2,2411	1145	100,2526	1,7750	0,4500	2,1545	1495	99,7297	1,5000	0,0000	2,0988
800	101,0784	4,7500	3,9684	2,2397	1150	100,2438	1,7500	0,4265	2,1536	1500	99,7230	1,5000	0,0000	2,0981
805	101,0645	4,6625	3,8918	2,2383	1155	100,2349	1,7250	0,4033	2,1527	1505	99,7163	1,5000	0,0000	2,0974
810	101,0504	4,5750	3,8150	2,2368	1160	100,2259	1,7000	0,3806	2,1517	1510	99,7096	1,5000	0,0000	2,0967
815	101,0363	4,4875	3,7381	2,2354	1165	100,2170	1,6750	0,3582	2,1508	1515	99,7029	1,5000	0,0000	2,0959
820	101,0220	4,4000	3,6611	2,2340	1170	100,2080	1,6500	0,3362	2,1498	1520	99,6962	1,5000	0,0000	2,0952
825	101,0076	4,3125	3,5841	2,2325	1175	100,1990	1,6250	0,3146	2,1489	1525	99,6895	1,5000	0,0000	2,0945
830	100,9931	4,2250	3,5069	2,2310	1180	100,1899	1,6000	0,2933	2,1479	1530	99,6829	1,5000	0,0000	2,0938
835	100,9785	4,1375	3,4298	2,2296	1185	100,1808	1,5750	0,2725	2,1470	1535	99,6762	1,5000	0,0000	2,0930
840	100,9637	4,0500	3,3526	2,2281	1190	100,1717	1,5500	0,2521	2,1460	1540	99,6695	1,5000	0,0000	2,0923
845	100,9489	3,9625	3,2755	2,2265	1195	100,1625	1,5250	0,2321	2,1450	1545	99,6629	1,5000	0,0000	2,0916
850	100,9339	3,8750	3,1983	2,2250	1200	100,1532	1,5000	0,2125	2,1441	1550	99,6563	1,5000	0,0000	2,0909
855	100,9189	3,7875	3,1211	2,2235	1205	100,1440	1,5000	0,1937	2,1431	1555	99,6496	1,5000	0,0000	2,0902
860	100,9037	3,7000	3,0440	2,2219	1210	100,1350	1,5000	0,1758	2,1421	1560	99,6430	1,5000	0,0000	2,0894
865	100,8883	3,6125	2,9670	2,2204	1215	100,1262	1,5000	0,1589	2,1412	1565	99,6364	1,5000	0,0000	2,0887
870	100,8729	3,5250	2,8900	2,2188	1220	100,1176	1,5000	0,1429	2,1403	1570	99,6297	1,5000	0,0000	2,0880
875	100,8574	3,4375	2,8131	2,2172	1225	100,1091	1,5000	0,1277	2,1394	1575	99,6231	1,5000	0,0000	2,0873
880	100,8417	3,3500	2,7363	2,2156	1230	100,1008	1,5000	0,1134	2,1385	1580	99,6165	1,5000	0,0000	2,0866
885	100,8259	3,2625	2,6596	2,2140	1235	100,0927	1,5000	0,0999	2,1376	1585	99,6099	1,5000	0,0000	2,0859
890	100,8100	3,1750	2,5830	2,2124	1240	100,0846	1,5000	0,0873	2,1368	1590	99,6033	1,5000	0,0000	2,0851
895	100,7939	3,0875	2,5066	2,2107	1245	100,0768	1,5000	0,0754	2,1360	1595	99,5967	1,5000	0,0000	2,0844
900	100,7777	3,0000	2,4304	2,2091	1250	100,0690	1,5000	0,0643	2,1351	1600	99,5902	1,5000	0,0000	2,0837
905	100,7617	2,9750	2,3557	2,2074	1255	100,0614	1,5000	0,0539	2,1343	1605	99,5836	1,5000	0,0000	2,0830
910	100,7462	2,9500	2,2839	2,2058	1260	100,0539	1,5000	0,0443	2,1335	1610	99,5770	1,5000	0,0000	2,0823
915	100,7310	2,9250	2,2149	2,2043	1265	100,0464	1,5000	0,0355	2,1327	1615	99,5705	1,5000	0,0000	2,0816
920	100,7163	2,9000	2,1484	2,2028	1270	100,0391	1,5000	0,0274	2,1320	1620	99,5639	1,5000	0,0000	2,0809
925	100,7020	2,8750	2,0843	2,2013	1275	100,0319	1,5000	0,0202	2,1312	1625	99,5574	1,5000	0,0000	2,0801
930	100,6881	2,8500	2,0224	2,1998	1280	100,0247	1,5000	0,0138	2,1304	1630	99,5508	1,5000	0,0000	2,0794
935	100,6745	2,8250	1,9628	2,1984	1285	100,0176	1,5000	0,0083	2,1297	1635	99,5443	1,5000	0,0000	2,0787
940	100,6612	2,8000	1,9051	2,1971	1290	100,0106	1,5000	0,0039	2,1289	1640	99,5378	1,5000	0,0000	2,0780
945	100,6482	2,7750	1,8493	2,1957	1295	100,0036	1,5000	0,0008	2,1282	1645	99,5313	1,5000	0,0000	2,0773
950	100,6355	2,7500	1,7953	2,1944	1300	99,9966	1,5000	0,0000	2,1274	1650	99,5247	1,5000	0,0000	2,0766
955	100,6231	2,7250	1,7430	2,1931	1305	99,9896	1,5000	0,0000	2,1267	1655	99,5182	1,5000	0,0000	2,0759
960	100,6110	2,7000	1,6923	2,1919	1310	99,9827	1,5000	0,0000	2,1260	1660	99,5117	1,5000	0,0000	2,0752
965	100,5991	2,6750	1,6431	2,1907	1315	99,9757	1,5000	0,0000	2,1252	1665	99,5052	1,5000	0,0000	2,0745
970	100,5874	2,6500	1,5954	2,1895	1320	99,9688	1,5000	0,0000	2,1245	1670	99,4988	1,5000	0,0000	2,0737
975	100,5760	2,6250	1,5490	2,1883	1325	99,9618	1,5000	0,0000	2,1237	1675	99,4923	1,5000	0,0000	2,0730
980	100,5647	2,6000	1,5038	2,1871	1330	99,9549	1,5000	0,0000	2,1230	1680	99,4858	1,5000	0,0000	2,0723
985	100,5537	2,5750	1,4599	2,1860	1335	99,9479	1,5000	0,0000	2,1223	1685	99,4793	1,5000	0,0000	2,0716
990	100,5428	2,5500	1,4172	2,1848	1340	99,9410	1,5000	0,0000	2,1215	1690	99,4729	1,5000	0,0000	2,0709
995	100,5321	2,5250	1,3755	2,1837	1345	99,9341	1,5000	0,0000	2,1208	1695	99,4664	1,5000	0,0000	2,0702
1000	100,5216	2,5000	1,3348	2,1826	1350	99,9272	1,5000	0,0000	2,1200	1700	99,4600	1,5000	0,0000	2,0695
1005	100,5112	2,4750	1,2952	2,1816	1355	99,9203	1,5000	0,0000	2,1193	1705	99,4535	1,5000	0,0000	2,0688
1010	100,5010	2,4500	1,2564	2,1805	1360	99,9134	1,5000	0,0000	2,1186	1710	99,4471	1,5000	0,0000	2,0681
1015	100,4909	2,4250	1,2186	2,1794	1365	99,9065	1,5000	0,0000	2,1178	1715	99,4407	1,5000	0,0000	2,0674
1020	100,4809	2,4000	1,1816	2,1784	1370	99,8996	1,5000	0,0000	2,1171	1720	99,4343	1,5000	0,0000	2,0667
1025	100,4710	2,3750	1,1454	2,1774	1375	99,8928	1,5000	0,0000	2,1164	1725	99,4278	1,5000	0,0000	2,0660
1030	100,4612	2,3500	1,1100	2,1764	1380	99,8859	1,5000	0,0000	2,1156	1730	99,4214	1,5000	0,0000	2,0653
1035	100,4516	2,3250	1,0753	2,1754	1385	99,8790	1,5000	0,0000	2,1149	1735	99,4150	1,5000	0,0000	2,0646
1040	100,4420	2,3000	1,0413	2,1744	1390	99,8722	1,5000	0,0000	2,1141	1740	99,4086	1,5000	0,0000	2,0639
1045	100,4325	2,2750	1,0080	2,1734	1395	99,8653	1,5000	0,0000	2,1134	1745	99,4022	1,5000	0,0000	2,0632
1050	100,4231	2,2500	0,9754	2,1724	1400	99,8585	1,5000	0,0000	2,1127	1750	99,3959	1,5000	0,0000	2,0625
1055	100,4138	2,2250	0,9433	2,1714	1405	99,8516	1,5000	0,0000	2,1119	1755	99,3895	1,5000	0,0000	2,0618
1060	100,4046	2,2000	0,9118	2,1704	1410	99,8448	1,5000	0,0000	2,1112	1760	99,3831	1,5000	0,0000	2,0611
1065	100,3954	2,1750	0,8809	2,1695	1415	99,8380	1,5000	0,0000	2,1105	1765	99,3768	1,5000	0,0000	2,0604
1070	100,3862	2,1500	0,8506	2,1685	1420	99,8312	1,5000	0,0000	2,1097	1770	99,3704	1,5000	0,0000	2,0597
1075	100,3771	2,1250	0,8207	2,1676	1425	99,8244	1,5000	0,0000	2,1090	1775	99,3641	1,5000	0,0000	2,0590
1080	100,3681	2,1000	0,7914	2,1666	1430	99,8175	1,5000	0,0000	2,1083	1780	99,3577	1,5000	0,0000	2,0583
1085	100,3591	2,0750	0,7626	2,1657	1435	99,8108	1,5000	0,0000	2,1076	1785	99,3514	1,5000	0,0000	2,0576
1090	100,3501	2,0500	0,7342	2,1648	1440	99,8040	1,5000	0,0000	2,1068	1790	99,3450	1,5000	0,0000	2,0569
1095	100,3412	2,0250	0,7063	2,1638	1445	99,7972	1,5000	0,0000	2,1061	1795	99,3387	1,5000	0,0000	2,0562
1100	100,3323	2,0000	0,6788	2,1629	1450	99,7904	1,5000	0,0000	2,1054	1800	99,3324	1,5000	0,0000	2,0555
1105	100,3234	1,9750	0,6518	2,1620	1455	99,7836	1,5000	0,0000	2,1046	1805	99,3261	1,5000	0,0000	2,0548
1110	100,3146	1,9500	0,6252	2,1610	1460	99,7769	1,5000	0,0000	2,1039	1810	99,3198	1,5000	0,0000	2,0541

Tablica 1- nastavak 2 Rezultati proračuna za dužinu preljevnog praga $B_1 = 2\ m$

t(s)	h(m.n.m.)	Qo (m^3/s)	Qp (m^3/s)	Q1 (m^3/s)
1815	99,3135	1,5000	0,0000	2,0534
1820	99,3072	1,5000	0,0000	2,0527
1825	99,3009	1,5000	0,0000	2,0520
1830	99,2947	1,5000	0,0000	2,0513
1835	99,2884	1,5000	0,0000	2,0506
1840	99,2821	1,5000	0,0000	2,0499
1845	99,2759	1,5000	0,0000	2,0493
1850	99,2696	1,5000	0,0000	2,0486
1855	99,2634	1,5000	0,0000	2,0479
1860	99,2571	1,5000	0,0000	2,0472
1865	99,2509	1,5000	0,0000	2,0465
1870	99,2447	1,5000	0,0000	2,0458
1875	99,2385	1,5000	0,0000	2,0451
1880	99,2322	1,5000	0,0000	2,0444
1885	99,2260	1,5000	0,0000	2,0437
1890	99,2198	1,5000	0,0000	2,0431
1895	99,2136	1,5000	0,0000	2,0424
1900	99,2075	1,5000	0,0000	2,0417
1905	99,2013	1,5000	0,0000	2,0410
1910	99,1951	1,5000	0,0000	2,0403
1915	99,1889	1,5000	0,0000	2,0396
1920	99,1828	1,5000	0,0000	2,0389
1925	99,1766	1,5000	0,0000	2,0383
1930	99,1705	1,5000	0,0000	2,0376
1935	99,1643	1,5000	0,0000	2,0369
1940	99,1582	1,5000	0,0000	2,0362
1945	99,1521	1,5000	0,0000	2,0355
1950	99,1460	1,5000	0,0000	2,0348
1955	99,1399	1,5000	0,0000	2,0342
1960	99,1337	1,5000	0,0000	2,0335
1965	99,1276	1,5000	0,0000	2,0328
1970	99,1216	1,5000	0,0000	2,0321
1975	99,1155	1,5000	0,0000	2,0314
1980	99,1094	1,5000	0,0000	2,0308
1985	99,1033	1,5000	0,0000	2,0301
1990	99,0972	1,5000	0,0000	2,0294
1995	99,0912	1,5000	0,0000	2,0287
2000	99,0851	1,5000	0,0000	2,0281
2005	99,0791	1,5000	0,0000	2,0274
2010	99,0730	1,5000	0,0000	2,0267
2015	99,0670	1,5000	0,0000	2,0260
2020	99,0610	1,5000	0,0000	2,0254
2025	99,0549	1,5000	0,0000	2,0247
2030	99,0489	1,5000	0,0000	2,0240
2035	99,0429	1,5000	0,0000	2,0233
2040	99,0369	1,5000	0,0000	2,0227
2045	99,0309	1,5000	0,0000	2,0220
2050	99,0249	1,5000	0,0000	2,0213
2055	99,0189	1,5000	0,0000	2,0207
2060	99,0130	1,5000	0,0000	2,0200
2065	99,0070	1,5000	0,0000	2,0193
2070	99,0010	1,5000	0,0000	2,0186
2075	98,9951	1,5000	0,0000	2,0180
2080	98,9891	1,5000	0,0000	2,0173
2085	98,9832	1,5000	0,0000	2,0166
2090	98,9772	1,5000	0,0000	2,0160
2095	98,9713	1,5000	0,0000	2,0153
2100	98,9654	1,5000	0,0000	2,0146
2105	98,9595	1,5000	0,0000	2,0140
2110	98,9536	1,5000	0,0000	2,0133
2115	98,9476	1,5000	0,0000	2,0126
2120	98,9417	1,5000	0,0000	2,0120
2125	98,9359	1,5000	0,0000	2,0113
2130	98,9300	1,5000	0,0000	2,0107
2135	98,9241	1,5000	0,0000	2,0100
2140	98,9182	1,5000	0,0000	2,0093
2145	98,9123	1,5000	0,0000	2,0087
2150	98,9065	1,5000	0,0000	2,0080
2155	98,9006	1,5000	0,0000	2,0073
2160	98,8948	1,5000	0,0000	2,0067
2165	98,8889	1,5000	0,0000	2,0060
2170	98,8831	1,5000	0,0000	2,0054
2175	98,8773	1,5000	0,0000	2,0047
2180	98,8714	1,5000	0,0000	2,0040
2185	98,8656	1,5000	0,0000	2,0034
2190	98,8598	1,5000	0,0000	2,0027
2195	98,8540	1,5000	0,0000	2,0021
2200	98,8482	1,5000	0,0000	2,0014
2205	98,8424	1,5000	0,0000	2,0008
2210	98,8366	1,5000	0,0000	2,0001
2215	98,8309	1,5000	0,0000	1,9995
2220	98,8251	1,5000	0,0000	1,9988
2225	98,8193	1,5000	0,0000	1,9981
2230	98,8136	1,5000	0,0000	1,9975
2235	98,8078	1,5000	0,0000	1,9968
2240	98,8021	1,5000	0,0000	1,9962
2245	98,7963	1,5000	0,0000	1,9955
2250	98,7906	1,5000	0,0000	1,9949
2255	98,7849	1,5000	0,0000	1,9942
2260	98,7792	1,5000	0,0000	1,9936
2265	98,7734	1,5000	0,0000	1,9929
2270	98,7677	1,5000	0,0000	1,9923
2275	98,7620	1,5000	0,0000	1,9916
2280	98,7563	1,5000	0,0000	1,9910
2285	98,7507	1,5000	0,0000	1,9903
2290	98,7450	1,5000	0,0000	1,9897
2295	98,7393	1,5000	0,0000	1,9891
2300	98,7336	1,5000	0,0000	1,9884
2305	98,7280	1,5000	0,0000	1,9878
2310	98,7223	1,5000	0,0000	1,9871
2315	98,7167	1,5000	0,0000	1,9865
2320	98,7110	1,5000	0,0000	1,9858
2325	98,7054	1,5000	0,0000	1,9852
2330	98,6997	1,5000	0,0000	1,9845
2335	98,6941	1,5000	0,0000	1,9839
2340	98,6885	1,5000	0,0000	1,9833
2345	98,6829	1,5000	0,0000	1,9826
2350	98,6773	1,5000	0,0000	1,9820
2355	98,6717	1,5000	0,0000	1,9813
2360	98,6661	1,5000	0,0000	1,9807
2365	98,6605	1,5000	0,0000	1,9801
2370	98,6549	1,5000	0,0000	1,9794
2375	98,6494	1,5000	0,0000	1,9788
2380	98,6438	1,5000	0,0000	1,9781
2385	98,6382	1,5000	0,0000	1,9775
2390	98,6327	1,5000	0,0000	1,9769
2395	98,6271	1,5000	0,0000	1,9762
2400	98,6216	1,5000	0,0000	1,9756
2405	98,6160	1,5000	0,0000	1,9750
2410	98,6105	1,5000	0,0000	1,9743
2415	98,6050	1,5000	0,0000	1,9737
2420	98,5995	1,5000	0,0000	1,9731
2425	98,5940	1,5000	0,0000	1,9724
2430	98,5885	1,5000	0,0000	1,9718
2435	98,5830	1,5000	0,0000	1,9712
2440	98,5775	1,5000	0,0000	1,9705
2445	98,5720	1,5000	0,0000	1,9699
2450	98,5665	1,5000	0,0000	1,9693
2455	98,5610	1,5000	0,0000	1,9686
2460	98,5556	1,5000	0,0000	1,9680
2465	98,5501	1,5000	0,0000	1,9674
2470	98,5447	1,5000	0,0000	1,9668
2475	98,5392	1,5000	0,0000	1,9661
2480	98,5338	1,5000	0,0000	1,9655
2485	98,5283	1,5000	0,0000	1,9649
2490	98,5229	1,5000	0,0000	1,9643
2495	98,5175	1,5000	0,0000	1,9636
2500	98,5121	1,5000	0,0000	1,9630
2505	98,5067	1,5000	0,0000	1,9624
2510	98,5012	1,5000	0,0000	1,9618
2515	98,4959	1,5000	0,0000	1,9611
2520	98,4905	1,5000	0,0000	1,9605
2525	98,4851	1,5000	0,0000	1,9599
2530	98,4797	1,5000	0,0000	1,9593
2535	98,4743	1,5000	0,0000	1,9586
2540	98,4690	1,5000	0,0000	1,9580
2545	98,4636	1,5000	0,0000	1,9574
2550	98,4582	1,5000	0,0000	1,9568
2555	98,4529	1,5000	0,0000	1,9562
2560	98,4476	1,5000	0,0000	1,9555
2565	98,4422	1,5000	0,0000	1,9549
2570	98,4369	1,5000	0,0000	1,9543
2575	98,4316	1,5000	0,0000	1,9537
2580	98,4263	1,5000	0,0000	1,9531
2585	98,4209	1,5000	0,0000	1,9525
2590	98,4156	1,5000	0,0000	1,9518
2595	98,4103	1,5000	0,0000	1,9512
2600	98,4051	1,5000	0,0000	1,9506
2605	98,3998	1,5000	0,0000	1,9500
2610	98,3945	1,5000	0,0000	1,9494
2615	98,3892	1,5000	0,0000	1,9488
2620	98,3840	1,5000	0,0000	1,9482
2625	98,3787	1,5000	0,0000	1,9476
2630	98,3734	1,5000	0,0000	1,9469
2635	98,3682	1,5000	0,0000	1,9463
2640	98,3629	1,5000	0,0000	1,9457
2645	98,3577	1,5000	0,0000	1,9451
2650	98,3525	1,5000	0,0000	1,9445
2655	98,3473	1,5000	0,0000	1,9439
2660	98,3420	1,5000	0,0000	1,9433
2665	98,3368	1,5000	0,0000	1,9427
2670	98,3316	1,5000	0,0000	1,9421
2675	98,3264	1,5000	0,0000	1,9415
2680	98,3212	1,5000	0,0000	1,9409
2685	98,3161	1,5000	0,0000	1,9403
2690	98,3109	1,5000	0,0000	1,9396
2695	98,3057	1,5000	0,0000	1,9390
2700	98,3005	1,5000	0,0000	1,9384
2705	98,2954	1,5000	0,0000	1,9378
2710	98,2902	1,5000	0,0000	1,9372
2715	98,2851	1,5000	0,0000	1,9366
2720	98,2799	1,5000	0,0000	1,9360
2725	98,2748	1,5000	0,0000	1,9354
2730	98,2697	1,5000	0,0000	1,9348
2735	98,2645	1,5000	0,0000	1,9342
2740	98,2594	1,5000	0,0000	1,9336
2745	98,2543	1,5000	0,0000	1,9330
2750	98,2492	1,5000	0,0000	1,9324
2755	98,2441	1,5000	0,0000	1,9318
2760	98,2390	1,5000	0,0000	1,9312
2765	98,2339	1,5000	0,0000	1,9306
2770	98,2288	1,5000	0,0000	1,9300
2775	98,2238	1,5000	0,0000	1,9294
2780	98,2187	1,5000	0,0000	1,9289
2785	98,2136	1,5000	0,0000	1,9283
2790	98,2086	1,5000	0,0000	1,9277
2795	98,2035	1,5000	0,0000	1,9271
2800	98,1985	1,5000	0,0000	1,9265
2805	98,1934	1,5000	0,0000	1,9259
2810	98,1884	1,5000	0,0000	1,9253
2815	98,1834	1,5000	0,0000	1,9247
2820	98,1784	1,5000	0,0000	1,9241
2825	98,1734	1,5000	0,0000	1,9235
2830	98,1683	1,5000	0,0000	1,9229
2835	98,1633	1,5000	0,0000	1,9223
2840	98,1583	1,5000	0,0000	1,9218
2845	98,1534	1,5000	0,0000	1,9212
2850	98,1484	1,5000	0,0000	1,9206
2855	98,1434	1,5000	0,0000	1,9200
2860	98,1384	1,5000	0,0000	1,9194
2865	98,1335	1,5000	0,0000	1,9188
2870	98,1285	1,5000	0,0000	1,9182
2875	98,1235	1,5000	0,0000	1,9176

Tablica 2 Rezultati proračuna za dužinu preljevnog praga B₂ = 3 m

t(s)	h (m.n.m.)	Qo (m³/s)	Qp (m³/s)	Q1 (m³/s)
0	99,5000	1,5000	0,0000	2,0739
5	99,4936	1,5200	0,0000	2,0732
10	99,4875	1,5400	0,0000	2,0725
15	99,4816	1,5600	0,0000	2,0719
20	99,4759	1,5800	0,0000	2,0713
25	99,4705	1,6000	0,0000	2,0707
30	99,4653	1,6200	0,0000	2,0701
35	99,4603	1,6400	0,0000	2,0695
40	99,4556	1,6600	0,0000	2,0690
45	99,4510	1,6800	0,0000	2,0685
50	99,4468	1,7000	0,0000	2,0681
55	99,4427	1,7200	0,0000	2,0676
60	99,4389	1,7400	0,0000	2,0672
65	99,4353	1,7600	0,0000	2,0668
70	99,4319	1,7800	0,0000	2,0664
75	99,4288	1,8000	0,0000	2,0661
80	99,4259	1,8200	0,0000	2,0658
85	99,4232	1,8400	0,0000	2,0655
90	99,4208	1,8600	0,0000	2,0652
95	99,4186	1,8800	0,0000	2,0650
100	99,4166	1,9000	0,0000	2,0648
105	99,4149	1,9200	0,0000	2,0646
110	99,4133	1,9400	0,0000	2,0644
115	99,4120	1,9600	0,0000	2,0643
120	99,4110	1,9800	0,0000	2,0641
125	99,4101	2,0000	0,0000	2,0640
130	99,4095	2,0200	0,0000	2,0640
135	99,4091	2,0400	0,0000	2,0639
140	99,4090	2,0600	0,0000	2,0639
145	99,4090	2,0800	0,0000	2,0639
150	99,4093	2,1000	0,0000	2,0640
155	99,4099	2,1200	0,0000	2,0640
160	99,4106	2,1400	0,0000	2,0641
165	99,4116	2,1600	0,0000	2,0642
170	99,4128	2,1800	0,0000	2,0643
175	99,4142	2,2000	0,0000	2,0645
180	99,4159	2,2200	0,0000	2,0647
185	99,4177	2,2400	0,0000	2,0649
190	99,4198	2,2600	0,0000	2,0651
195	99,4221	2,2800	0,0000	2,0654
200	99,4247	2,3000	0,0000	2,0656
205	99,4289	2,5850	0,0000	2,0661
210	99,4364	2,8700	0,0000	2,0669
215	99,4471	3,1550	0,0000	2,0681
220	99,4610	3,4400	0,0000	2,0696
225	99,4781	3,7250	0,0000	2,0715
230	99,4984	4,0100	0,0000	2,0737
235	99,5219	4,2950	0,0000	2,0763
240	99,5485	4,5800	0,0000	2,0792
245	99,5783	4,8650	0,0000	2,0824
250	99,6112	5,1500	0,0000	2,0860
255	99,6473	5,4350	0,0000	2,0899
260	99,6864	5,7200	0,0000	2,0942
265	99,7287	6,0050	0,0000	2,0987
270	99,7740	6,2900	0,0000	2,1036
275	99,8224	6,5750	0,0000	2,1088
280	99,8739	6,8600	0,0000	2,1143
285	99,9283	7,1450	0,0000	2,1202
290	99,9858	7,4300	0,0000	2,1263
295	100,0458	7,7150	0,0521	2,1327
300	100,1073	8,0000	0,1868	2,1392
305	100,1683	8,0500	0,3669	2,1456
310	100,2271	8,1000	0,5752	2,1518
315	100,2835	8,1500	0,8024	2,1578
320	100,3375	8,2000	1,0422	2,1634
325	100,3890	8,2500	1,2894	2,1688
330	100,4379	8,3000	1,5404	2,1739
335	100,4844	8,3500	1,7920	2,1788
340	100,5285	8,4000	2,0419	2,1833
345	100,5702	8,4500	2,2884	2,1877
350	100,6096	8,5000	2,5299	2,1917
355	100,6469	8,5500	2,7656	2,1956
360	100,6821	8,6000	2,9945	2,1992
365	100,7154	8,6500	3,2162	2,2027
370	100,7468	8,7000	3,4303	2,2059
375	100,7764	8,7500	3,6365	2,2089
380	100,8044	8,8000	3,8350	2,2118
385	100,8309	8,8500	4,0255	2,2145
390	100,8558	8,9000	4,2084	2,2171
395	100,8794	8,9500	4,3837	2,2195
400	100,9018	9,0000	4,5516	2,2217
405	100,9229	9,0500	4,7124	2,2239
410	100,9429	9,1000	4,8664	2,2259
415	100,9618	9,1500	5,0138	2,2279
420	100,9798	9,2000	5,1550	2,2297
425	100,9969	9,2500	5,2903	2,2314
430	101,0131	9,3000	5,4199	2,2331
435	101,0285	9,3500	5,5442	2,2346
440	101,0432	9,4000	5,6634	2,2361
445	101,0572	9,4500	5,7780	2,2375
450	101,0706	9,5000	5,8880	2,2389
455	101,0834	9,5500	5,9939	2,2402
460	101,0956	9,6000	6,0958	2,2414
465	101,1074	9,6500	6,1941	2,2426
470	101,1187	9,7000	6,2889	2,2437
475	101,1295	9,7500	6,3806	2,2448
480	101,1399	9,8000	6,4692	2,2459
485	101,1500	9,8500	6,5550	2,2469
490	101,1597	9,9000	6,6382	2,2479
495	101,1691	9,9500	6,7190	2,2488
500	101,1782	10,0000	6,7975	2,2498
505	101,1864	9,9125	6,8685	2,2506
510	101,1931	9,8250	6,9272	2,2513
515	101,1985	9,7375	6,9745	2,2518
520	101,2028	9,6500	7,0112	2,2522
525	101,2058	9,5625	7,0382	2,2525
530	101,2079	9,4750	7,0561	2,2527
535	101,2090	9,3875	7,0658	2,2529
540	101,2092	9,3000	7,0677	2,2529
545	101,2086	9,2125	7,0627	2,2528
550	101,2073	9,1250	7,0511	2,2527
555	101,2053	9,0375	7,0336	2,2525
560	101,2027	8,9500	7,0106	2,2522
565	101,1995	8,8625	6,9826	2,2519
570	101,1957	8,7750	6,9500	2,2515
575	101,1915	8,6875	6,9131	2,2511
580	101,1868	8,6000	6,8724	2,2506
585	101,1817	8,5125	6,8281	2,2501
590	101,1762	8,4250	6,7805	2,2496
595	101,1704	8,3375	6,7299	2,2490
600	101,1642	8,2500	6,6766	2,2483
605	101,1577	8,1625	6,6208	2,2477
610	101,1509	8,0750	6,5626	2,2470
615	101,1438	7,9875	6,5024	2,2463
620	101,1365	7,9000	6,4403	2,2456
625	101,1290	7,8125	6,3764	2,2448
630	101,1213	7,7250	6,3108	2,2440
635	101,1133	7,6375	6,2439	2,2432
640	101,1052	7,5500	6,1755	2,2424
645	101,0969	7,4625	6,1060	2,2415
650	101,0884	7,3750	6,0353	2,2407
655	101,0797	7,2875	5,9636	2,2398
660	101,0710	7,2000	5,8910	2,2389
665	101,0620	7,1125	5,8175	2,2380
670	101,0530	7,0250	5,7432	2,2371
675	101,0438	6,9375	5,6683	2,2362
680	101,0345	6,8500	5,5927	2,2352
685	101,0251	6,7625	5,5165	2,2343
690	101,0155	6,6750	5,4398	2,2333
695	101,0059	6,5875	5,3626	2,2323
700	100,9962	6,5000	5,2850	2,2313
705	100,9864	6,4125	5,2070	2,2304
710	100,9764	6,3250	5,1287	2,2293
715	100,9664	6,2375	5,0500	2,2283
720	100,9563	6,1500	4,9711	2,2273
725	100,9462	6,0625	4,8919	2,2263
730	100,9359	5,9750	4,8125	2,2252
735	100,9255	5,8875	4,7329	2,2242
740	100,9151	5,8000	4,6531	2,2231
745	100,9046	5,7125	4,5732	2,2220
750	100,8940	5,6250	4,4932	2,2210
755	100,8834	5,5375	4,4131	2,2199
760	100,8726	5,4500	4,3328	2,2188
765	100,8618	5,3625	4,2525	2,2177
770	100,8509	5,2750	4,1722	2,2165
775	100,8400	5,1875	4,0918	2,2154
780	100,8289	5,1000	4,0114	2,2143
785	100,8178	5,0125	3,9309	2,2132
790	100,8066	4,9250	3,8505	2,2120
795	100,7953	4,8375	3,7701	2,2109
800	100,7840	4,7500	3,6897	2,2097
805	100,7726	4,6625	3,6094	2,2085
810	100,7611	4,5750	3,5291	2,2073
815	100,7495	4,4875	3,4489	2,2062
820	100,7378	4,4000	3,3687	2,2050
825	100,7261	4,3125	3,2887	2,2038
830	100,7143	4,2250	3,2087	2,2025
835	100,7024	4,1375	3,1288	2,2013
840	100,6904	4,0500	3,0490	2,2001
845	100,6783	3,9625	2,9694	2,1988
850	100,6661	3,8750	2,8899	2,1976
855	100,6539	3,7875	2,8105	2,1963
860	100,6415	3,7000	2,7313	2,1950
865	100,6291	3,6125	2,6523	2,1938
870	100,6166	3,5250	2,5734	2,1925
875	100,6039	3,4375	2,4947	2,1912
880	100,5912	3,3500	2,4163	2,1898
885	100,5784	3,2625	2,3380	2,1885
890	100,5654	3,1750	2,2600	2,1872
895	100,5524	3,0875	2,1822	2,1858
900	100,5392	3,0000	2,1047	2,1845
905	100,5263	2,9750	2,0293	2,1831
910	100,5138	2,9500	1,9576	2,1818
915	100,5018	2,9250	1,8893	2,1806
920	100,4902	2,9000	1,8242	2,1794
925	100,4790	2,8750	1,7620	2,1782
930	100,4681	2,8500	1,7025	2,1771
935	100,4576	2,8250	1,6456	2,1760
940	100,4475	2,8000	1,5909	2,1749
945	100,4376	2,7750	1,5385	2,1739
950	100,4279	2,7500	1,4880	2,1729
955	100,4186	2,7250	1,4394	2,1719
960	100,4094	2,7000	1,3926	2,1710
965	100,4005	2,6750	1,3473	2,1700
970	100,3918	2,6500	1,3036	2,1691
975	100,3833	2,6250	1,2613	2,1682
980	100,3749	2,6000	1,2203	2,1674
985	100,3667	2,5750	1,1805	2,1665
990	100,3587	2,5500	1,1419	2,1657
995	100,3508	2,5250	1,1043	2,1648
1000	100,3430	2,5000	1,0678	2,1640
1005	100,3353	2,4750	1,0322	2,1632
1010	100,3278	2,4500	0,9975	2,1624
1015	100,3203	2,4250	0,9637	2,1616
1020	100,3130	2,4000	0,9306	2,1609
1025	100,3057	2,3750	0,8983	2,1601
1030	100,2985	2,3500	0,8667	2,1593
1035	100,2913	2,3250	0,8357	2,1586
1040	100,2842	2,3000	0,8054	2,1579
1045	100,2772	2,2750	0,7757	2,1571

Tablica 2 – nastavak 1 - Rezultati proračuna za dužinu preljevnog praga $B_2 = 3\ m$

t(s)	h(m.n.m.)	Qo (m^3/s)	Qp (m^3/s)	Q1 (m^3/s)	t(s)	h(m.n.m.)	Qo (m^3/s)	Qp (m^3/s)	Q1 (m^3/s)	t(s)	h(m.n.m.)	Qo (m^3/s)	Qp (m^3/s)	Q1 (m^3/s)
1050	100,2702	2,2500	0,7466	2,1564	1400	99,7806	1,5000	0,0000	2,1043	1750	99,3233	1,5000	0,0000	2,0545
1055	100,2633	2,2250	0,7180	2,1557	1405	99,7738	1,5000	0,0000	2,1036	1755	99,3170	1,5000	0,0000	2,0538
1060	100,2564	2,2000	0,6899	2,1549	1410	99,7671	1,5000	0,0000	2,1029	1760	99,3107	1,5000	0,0000	2,0531
1065	100,2495	2,1750	0,6624	2,1542	1415	99,7603	1,5000	0,0000	2,1021	1765	99,3044	1,5000	0,0000	2,0524
1070	100,2426	2,1500	0,6353	2,1535	1420	99,7536	1,5000	0,0000	2,1014	1770	99,2981	1,5000	0,0000	2,0517
1075	100,2358	2,1250	0,6086	2,1528	1425	99,7468	1,5000	0,0000	2,1007	1775	99,2918	1,5000	0,0000	2,0510
1080	100,2290	2,1000	0,5824	2,1520	1430	99,7401	1,5000	0,0000	2,0999	1780	99,2855	1,5000	0,0000	2,0503
1085	100,2222	2,0750	0,5567	2,1513	1435	99,7334	1,5000	0,0000	2,0992	1785	99,2793	1,5000	0,0000	2,0496
1090	100,2154	2,0500	0,5313	2,1506	1440	99,7267	1,5000	0,0000	2,0985	1790	99,2730	1,5000	0,0000	2,0489
1095	100,2086	2,0250	0,5064	2,1499	1445	99,7200	1,5000	0,0000	2,0978	1795	99,2668	1,5000	0,0000	2,0483
1100	100,2018	2,0000	0,4819	2,1492	1450	99,7133	1,5000	0,0000	2,0971	1800	99,2605	1,5000	0,0000	2,0476
1105	100,1950	1,9750	0,4577	2,1485	1455	99,7066	1,5000	0,0000	2,0963	1805	99,2543	1,5000	0,0000	2,0469
1110	100,1882	1,9500	0,4339	2,1477	1460	99,6999	1,5000	0,0000	2,0956	1810	99,2481	1,5000	0,0000	2,0462
1115	100,1814	1,9250	0,4105	2,1470	1465	99,6932	1,5000	0,0000	2,0949	1815	99,2419	1,5000	0,0000	2,0455
1120	100,1745	1,9000	0,3875	2,1463	1470	99,6865	1,5000	0,0000	2,0942	1820	99,2356	1,5000	0,0000	2,0448
1125	100,1676	1,8750	0,3648	2,1456	1475	99,6799	1,5000	0,0000	2,0934	1825	99,2294	1,5000	0,0000	2,0441
1130	100,1607	1,8500	0,3426	2,1448	1480	99,6732	1,5000	0,0000	2,0927	1830	99,2232	1,5000	0,0000	2,0434
1135	100,1538	1,8250	0,3207	2,1441	1485	99,6665	1,5000	0,0000	2,0920	1835	99,2170	1,5000	0,0000	2,0427
1140	100,1469	1,8000	0,2992	2,1434	1490	99,6599	1,5000	0,0000	2,0913	1840	99,2109	1,5000	0,0000	2,0421
1145	100,1399	1,7750	0,2780	2,1426	1495	99,6533	1,5000	0,0000	2,0906	1845	99,2047	1,5000	0,0000	2,0414
1150	100,1328	1,7500	0,2573	2,1419	1500	99,6466	1,5000	0,0000	2,0898	1850	99,1985	1,5000	0,0000	2,0407
1155	100,1257	1,7250	0,2370	2,1411	1505	99,6400	1,5000	0,0000	2,0891	1855	99,1923	1,5000	0,0000	2,0400
1160	100,1186	1,7000	0,2170	2,1404	1510	99,6334	1,5000	0,0000	2,0884	1860	99,1862	1,5000	0,0000	2,0393
1165	100,1114	1,6750	0,1976	2,1396	1515	99,6267	1,5000	0,0000	2,0877	1865	99,1800	1,5000	0,0000	2,0386
1170	100,1041	1,6500	0,1786	2,1389	1520	99,6201	1,5000	0,0000	2,0870	1870	99,1739	1,5000	0,0000	2,0379
1175	100,0968	1,6250	0,1600	2,1381	1525	99,6135	1,5000	0,0000	2,0863	1875	99,1677	1,5000	0,0000	2,0373
1180	100,0894	1,6000	0,1420	2,1373	1530	99,6069	1,5000	0,0000	2,0855	1880	99,1616	1,5000	0,0000	2,0366
1185	100,0819	1,5750	0,1246	2,1365	1535	99,6004	1,5000	0,0000	2,0848	1885	99,1554	1,5000	0,0000	2,0359
1190	100,0743	1,5500	0,1077	2,1357	1540	99,5938	1,5000	0,0000	2,0841	1890	99,1493	1,5000	0,0000	2,0352
1195	100,0667	1,5250	0,0915	2,1349	1545	99,5872	1,5000	0,0000	2,0834	1895	99,1432	1,5000	0,0000	2,0345
1200	100,0589	1,5000	0,0760	2,1341	1550	99,5806	1,5000	0,0000	2,0827	1900	99,1371	1,5000	0,0000	2,0339
1205	100,0511	1,5000	0,0615	2,1332	1555	99,5741	1,5000	0,0000	2,0820	1905	99,1310	1,5000	0,0000	2,0332
1210	100,0436	1,5000	0,0483	2,1324	1560	99,5675	1,5000	0,0000	2,0812	1910	99,1249	1,5000	0,0000	2,0325
1215	100,0361	1,5000	0,0365	2,1316	1565	99,5610	1,5000	0,0000	2,0805	1915	99,1188	1,5000	0,0000	2,0318
1220	100,0288	1,5000	0,0260	2,1309	1570	99,5544	1,5000	0,0000	2,0798	1920	99,1127	1,5000	0,0000	2,0311
1225	100,0216	1,5000	0,0168	2,1301	1575	99,5479	1,5000	0,0000	2,0791	1925	99,1066	1,5000	0,0000	2,0305
1230	100,0145	1,5000	0,0092	2,1293	1580	99,5413	1,5000	0,0000	2,0784	1930	99,1006	1,5000	0,0000	2,0298
1235	100,0074	1,5000	0,0034	2,1286	1585	99,5348	1,5000	0,0000	2,0777	1935	99,0945	1,5000	0,0000	2,0291
1240	100,0004	1,5000	0,0000	2,1278	1590	99,5283	1,5000	0,0000	2,0770	1940	99,0884	1,5000	0,0000	2,0284
1245	99,9934	1,5000	0,0000	2,1271	1595	99,5218	1,5000	0,0000	2,0763	1945	99,0824	1,5000	0,0000	2,0278
1250	99,9865	1,5000	0,0000	2,1264	1600	99,5153	1,5000	0,0000	2,0756	1950	99,0763	1,5000	0,0000	2,0271
1255	99,9795	1,5000	0,0000	2,1256	1605	99,5088	1,5000	0,0000	2,0748	1955	99,0703	1,5000	0,0000	2,0264
1260	99,9726	1,5000	0,0000	2,1249	1610	99,5023	1,5000	0,0000	2,0741	1960	99,0643	1,5000	0,0000	2,0257
1265	99,9656	1,5000	0,0000	2,1241	1615	99,4958	1,5000	0,0000	2,0734	1965	99,0582	1,5000	0,0000	2,0251
1270	99,9587	1,5000	0,0000	2,1234	1620	99,4893	1,5000	0,0000	2,0727	1970	99,0522	1,5000	0,0000	2,0244
1275	99,9517	1,5000	0,0000	2,1227	1625	99,4829	1,5000	0,0000	2,0720	1975	99,0462	1,5000	0,0000	2,0237
1280	99,9448	1,5000	0,0000	2,1219	1630	99,4764	1,5000	0,0000	2,0713	1980	99,0402	1,5000	0,0000	2,0230
1285	99,9379	1,5000	0,0000	2,1212	1635	99,4700	1,5000	0,0000	2,0706	1985	99,0342	1,5000	0,0000	2,0224
1290	99,9310	1,5000	0,0000	2,1204	1640	99,4635	1,5000	0,0000	2,0699	1990	99,0282	1,5000	0,0000	2,0217
1295	99,9241	1,5000	0,0000	2,1197	1645	99,4571	1,5000	0,0000	2,0692	1995	99,0222	1,5000	0,0000	2,0210
1300	99,9172	1,5000	0,0000	2,1190	1650	99,4506	1,5000	0,0000	2,0685	2000	99,0162	1,5000	0,0000	2,0204
1305	99,9103	1,5000	0,0000	2,1182	1655	99,4442	1,5000	0,0000	2,0678	2005	99,0103	1,5000	0,0000	2,0197
1310	99,9034	1,5000	0,0000	2,1175	1660	99,4378	1,5000	0,0000	2,0671	2010	99,0043	1,5000	0,0000	2,0190
1315	99,8965	1,5000	0,0000	2,1168	1665	99,4314	1,5000	0,0000	2,0664	2015	98,9983	1,5000	0,0000	2,0183
1320	99,8896	1,5000	0,0000	2,1160	1670	99,4249	1,5000	0,0000	2,0657	2020	98,9924	1,5000	0,0000	2,0177
1325	99,8828	1,5000	0,0000	2,1153	1675	99,4185	1,5000	0,0000	2,0650	2025	98,9864	1,5000	0,0000	2,0170
1330	99,8759	1,5000	0,0000	2,1145	1680	99,4121	1,5000	0,0000	2,0643	2030	98,9805	1,5000	0,0000	2,0163
1335	99,8691	1,5000	0,0000	2,1138	1685	99,4057	1,5000	0,0000	2,0636	2035	98,9746	1,5000	0,0000	2,0157
1340	99,8622	1,5000	0,0000	2,1131	1690	99,3994	1,5000	0,0000	2,0629	2040	98,9686	1,5000	0,0000	2,0150
1345	99,8554	1,5000	0,0000	2,1123	1695	99,3930	1,5000	0,0000	2,0622	2045	98,9627	1,5000	0,0000	2,0143
1350	99,8485	1,5000	0,0000	2,1116	1700	99,3866	1,5000	0,0000	2,0615	2050	98,9568	1,5000	0,0000	2,0137
1355	99,8417	1,5000	0,0000	2,1109	1705	99,3802	1,5000	0,0000	2,0608	2055	98,9509	1,5000	0,0000	2,0130
1360	99,8349	1,5000	0,0000	2,1102	1710	99,3739	1,5000	0,0000	2,0601	2060	98,9450	1,5000	0,0000	2,0123
1365	99,8281	1,5000	0,0000	2,1094	1715	99,3675	1,5000	0,0000	2,0594	2065	98,9391	1,5000	0,0000	2,0117
1370	99,8213	1,5000	0,0000	2,1087	1720	99,3612	1,5000	0,0000	2,0587	2070	98,9332	1,5000	0,0000	2,0110
1375	99,8145	1,5000	0,0000	2,1080	1725	99,3548	1,5000	0,0000	2,0580	2075	98,9273	1,5000	0,0000	2,0104
1380	99,8077	1,5000	0,0000	2,1072	1730	99,3485	1,5000	0,0000	2,0573	2080	98,9214	1,5000	0,0000	2,0097
1385	99,8009	1,5000	0,0000	2,1065	1735	99,3422	1,5000	0,0000	2,0566	2085	98,9156	1,5000	0,0000	2,0090
1390	99,7941	1,5000	0,0000	2,1058	1740	99,3359	1,5000	0,0000	2,0559	2090	98,9097	1,5000	0,0000	2,0084
1395	99,7873	1,5000	0,0000	2,1050	1745	99,3296	1,5000	0,0000	2,0552	2095	98,9038	1,5000	0,0000	2,0077

Tablica 2 – nastavak 2 Rezultati proračuna za dužinu preljevnog praga $B_2 = 3$ m

t(s)	h(m.n.m.)	Qo (m^3/s)	Qp (m^3/s)	Q1 (m^3/s)
2100	98,8980	1,5000	0,0000	2,0070
2105	98,8921	1,5000	0,0000	2,0064
2110	98,8863	1,5000	0,0000	2,0057
2115	98,8805	1,5000	0,0000	2,0051
2120	98,8746	1,5000	0,0000	2,0044
2125	98,8688	1,5000	0,0000	2,0038
2130	98,8630	1,5000	0,0000	2,0031
2135	98,8572	1,5000	0,0000	2,0024
2140	98,8514	1,5000	0,0000	2,0018
2145	98,8456	1,5000	0,0000	2,0011
2150	98,8398	1,5000	0,0000	2,0005
2155	98,8340	1,5000	0,0000	1,9998
2160	98,8283	1,5000	0,0000	1,9992
2165	98,8225	1,5000	0,0000	1,9985
2170	98,8167	1,5000	0,0000	1,9979
2175	98,8110	1,5000	0,0000	1,9972
2180	98,8052	1,5000	0,0000	1,9965
2185	98,7995	1,5000	0,0000	1,9959
2190	98,7937	1,5000	0,0000	1,9952
2195	98,7880	1,5000	0,0000	1,9946
2200	98,7823	1,5000	0,0000	1,9939
2205	98,7766	1,5000	0,0000	1,9933
2210	98,7709	1,5000	0,0000	1,9926
2215	98,7652	1,5000	0,0000	1,9920
2220	98,7595	1,5000	0,0000	1,9914
2225	98,7538	1,5000	0,0000	1,9907
2230	98,7481	1,5000	0,0000	1,9901
2235	98,7424	1,5000	0,0000	1,9894
2240	98,7367	1,5000	0,0000	1,9888
2245	98,7311	1,5000	0,0000	1,9881
2250	98,7254	1,5000	0,0000	1,9875
2255	98,7198	1,5000	0,0000	1,9868
2260	98,7141	1,5000	0,0000	1,9862
2265	98,7085	1,5000	0,0000	1,9855
2270	98,7028	1,5000	0,0000	1,9849
2275	98,6972	1,5000	0,0000	1,9843
2280	98,6916	1,5000	0,0000	1,9836
2285	98,6860	1,5000	0,0000	1,9830
2290	98,6804	1,5000	0,0000	1,9823
2295	98,6748	1,5000	0,0000	1,9817
2300	98,6692	1,5000	0,0000	1,9811
2305	98,6636	1,5000	0,0000	1,9804
2310	98,6580	1,5000	0,0000	1,9798
2315	98,6524	1,5000	0,0000	1,9791
2320	98,6468	1,5000	0,0000	1,9785
2325	98,6413	1,5000	0,0000	1,9779
2330	98,6357	1,5000	0,0000	1,9772
2335	98,6302	1,5000	0,0000	1,9766
2340	98,6246	1,5000	0,0000	1,9760
2345	98,6191	1,5000	0,0000	1,9753
2350	98,6135	1,5000	0,0000	1,9747
2355	98,6080	1,5000	0,0000	1,9740
2360	98,6025	1,5000	0,0000	1,9734
2365	98,5970	1,5000	0,0000	1,9728
2370	98,5915	1,5000	0,0000	1,9721
2375	98,5860	1,5000	0,0000	1,9715
2380	98,5805	1,5000	0,0000	1,9709
2385	98,5750	1,5000	0,0000	1,9703
2390	98,5695	1,5000	0,0000	1,9696
2395	98,5640	1,5000	0,0000	1,9690
2400	98,5586	1,5000	0,0000	1,9684
2405	98,5531	1,5000	0,0000	1,9677
2410	98,5476	1,5000	0,0000	1,9671
2415	98,5422	1,5000	0,0000	1,9665
2420	98,5367	1,5000	0,0000	1,9659
2425	98,5313	1,5000	0,0000	1,9652
2430	98,5259	1,5000	0,0000	1,9646
2435	98,5204	1,5000	0,0000	1,9640
2440	98,5150	1,5000	0,0000	1,9633
2445	98,5096	1,5000	0,0000	1,9627
2450	98,5042	1,5000	0,0000	1,9621
2455	98,4988	1,5000	0,0000	1,9615
2460	98,4934	1,5000	0,0000	1,9609
2465	98,4880	1,5000	0,0000	1,9602
2470	98,4826	1,5000	0,0000	1,9596
2475	98,4773	1,5000	0,0000	1,9590
2480	98,4719	1,5000	0,0000	1,9584
2485	98,4665	1,5000	0,0000	1,9577
2490	98,4612	1,5000	0,0000	1,9571
2495	98,4558	1,5000	0,0000	1,9565
2500	98,4505	1,5000	0,0000	1,9559
2505	98,4451	1,5000	0,0000	1,9553
2510	98,4398	1,5000	0,0000	1,9546
2515	98,4345	1,5000	0,0000	1,9540
2520	98,4292	1,5000	0,0000	1,9534
2525	98,4239	1,5000	0,0000	1,9528
2530	98,4185	1,5000	0,0000	1,9522
2535	98,4132	1,5000	0,0000	1,9516
2540	98,4080	1,5000	0,0000	1,9510
2545	98,4027	1,5000	0,0000	1,9503
2550	98,3974	1,5000	0,0000	1,9497
2555	98,3921	1,5000	0,0000	1,9491
2560	98,3868	1,5000	0,0000	1,9485
2565	98,3816	1,5000	0,0000	1,9479
2570	98,3763	1,5000	0,0000	1,9473
2575	98,3711	1,5000	0,0000	1,9467
2580	98,3658	1,5000	0,0000	1,9461
2585	98,3606	1,5000	0,0000	1,9454
2590	98,3553	1,5000	0,0000	1,9448
2595	98,3501	1,5000	0,0000	1,9442
2600	98,3449	1,5000	0,0000	1,9436
2605	98,3397	1,5000	0,0000	1,9430
2610	98,3345	1,5000	0,0000	1,9424
2615	98,3293	1,5000	0,0000	1,9418
2620	98,3241	1,5000	0,0000	1,9412
2625	98,3189	1,5000	0,0000	1,9406
2630	98,3137	1,5000	0,0000	1,9400
2635	98,3085	1,5000	0,0000	1,9394
2640	98,3034	1,5000	0,0000	1,9388
2645	98,2982	1,5000	0,0000	1,9382
2650	98,2930	1,5000	0,0000	1,9376
2655	98,2879	1,5000	0,0000	1,9370
2660	98,2827	1,5000	0,0000	1,9364
2665	98,2776	1,5000	0,0000	1,9358
2670	98,2725	1,5000	0,0000	1,9352
2675	98,2673	1,5000	0,0000	1,9346
2680	98,2622	1,5000	0,0000	1,9340
2685	98,2571	1,5000	0,0000	1,9334
2690	98,2520	1,5000	0,0000	1,9328
2695	98,2469	1,5000	0,0000	1,9322
2700	98,2418	1,5000	0,0000	1,9316
2705	98,2367	1,5000	0,0000	1,9310
2710	98,2316	1,5000	0,0000	1,9304
2715	98,2265	1,5000	0,0000	1,9298
2720	98,2215	1,5000	0,0000	1,9292
2725	98,2164	1,5000	0,0000	1,9286
2730	98,2113	1,5000	0,0000	1,9280
2735	98,2063	1,5000	0,0000	1,9274
2740	98,2012	1,5000	0,0000	1,9268
2745	98,1962	1,5000	0,0000	1,9262
2750	98,1912	1,5000	0,0000	1,9256
2755	98,1861	1,5000	0,0000	1,9250
2760	98,1811	1,5000	0,0000	1,9244
2765	98,1761	1,5000	0,0000	1,9238
2770	98,1711	1,5000	0,0000	1,9233
2775	98,1661	1,5000	0,0000	1,9227
2780	98,1611	1,5000	0,0000	1,9221
2785	98,1561	1,5000	0,0000	1,9215
2790	98,1511	1,5000	0,0000	1,9209
2795	98,1461	1,5000	0,0000	1,9203

t(s)	h(m.n.m.)	Qo (m^3/s)	Qp (m^3/s)	Q1 (m^3/s)
2800	98,1411	1,5000	0,0000	1,9197
2805	98,1362	1,5000	0,0000	1,9191
2810	98,1312	1,5000	0,0000	1,9186
2815	98,1263	1,5000	0,0000	1,9180
2820	98,1213	1,5000	0,0000	1,9174
2825	98,1164	1,5000	0,0000	1,9168
2830	98,1114	1,5000	0,0000	1,9162
2835	98,1065	1,5000	0,0000	1,9156
2840	98,1016	1,5000	0,0000	1,9150
2845	98,0966	1,5000	0,0000	1,9145
2850	98,0917	1,5000	0,0000	1,9139
2855	98,0868	1,5000	0,0000	1,9133
2860	98,0819	1,5000	0,0000	1,9127
2865	98,0770	1,5000	0,0000	1,9121
2870	98,0721	1,5000	0,0000	1,9116
2875	98,0673	1,5000	0,0000	1,9110

Tablica 3 Rezultati proračuna za dužinu preljevnog praga $B_3 = 4\ m$

t(s)	h(m.n.m.)	Qo (m^3/s)	Qp (m^3/s)	Q1 (m^3/s)	t(s)	h(m.n.m.)	Qo (m^3/s)	Qp (m^3/s)	Q1 (m^3/s)	t(s)	h(m.n.m.)	Qo (m^3/s)	Qp (m^3/s)	Q1 (m^3/s)
0	99,5000	1,5000	0,0000	2,0739	350	100,5749	8,5000	3,0892	2,1882	700	100,8083	6,5000	5,1503	2,2122
5	99,4936	1,5200	0,0000	2,0732	355	100,6066	8,5500	3,3483	2,1914	705	100,7998	6,4125	5,0689	2,2113
10	99,4875	1,5400	0,0000	2,0725	360	100,6361	8,6000	3,5954	2,1945	710	100,7912	6,3250	4,9873	2,2104
15	99,4816	1,5600	0,0000	2,0719	365	100,6635	8,6500	3,8303	2,1973	715	100,7825	6,2375	4,9056	2,2095
20	99,4759	1,5800	0,0000	2,0713	370	100,6890	8,7000	4,0531	2,1999	720	100,7738	6,1500	4,8238	2,2087
25	99,4705	1,6000	0,0000	2,0707	375	100,7127	8,7500	4,2640	2,2024	725	100,7650	6,0625	4,7419	2,2078
30	99,4653	1,6200	0,0000	2,0701	380	100,7347	8,8000	4,4634	2,2046	730	100,7562	5,9750	4,6600	2,2068
35	99,4603	1,6400	0,0000	2,0695	385	100,7553	8,8500	4,6518	2,2068	735	100,7473	5,8875	4,5780	2,2059
40	99,4556	1,6600	0,0000	2,0690	390	100,7744	8,9000	4,8296	2,2087	740	100,7383	5,8000	4,4960	2,2050
45	99,4510	1,6800	0,0000	2,0685	395	100,7922	8,9500	4,9975	2,2105	745	100,7293	5,7125	4,4140	2,2041
50	99,4468	1,7000	0,0000	2,0681	400	100,8089	9,0000	5,1561	2,2123	750	100,7202	5,6250	4,3319	2,2032
55	99,4427	1,7200	0,0000	2,0676	405	100,8245	9,0500	5,3058	2,2138	755	100,7111	5,5375	4,2499	2,2022
60	99,4389	1,7400	0,0000	2,0672	410	100,8391	9,1000	5,4474	2,2153	760	100,7019	5,4500	4,1679	2,2013
65	99,4353	1,7600	0,0000	2,0668	415	100,8528	9,1500	5,5813	2,2167	765	100,6927	5,3625	4,0859	2,2003
70	99,4319	1,7800	0,0000	2,0664	420	100,8657	9,2000	5,7081	2,2181	770	100,6834	5,2750	4,0039	2,1994
75	99,4288	1,8000	0,0000	2,0661	425	100,8778	9,2500	5,8283	2,2193	775	100,6741	5,1875	3,9220	2,1984
80	99,4259	1,8200	0,0000	2,0658	430	100,8892	9,3000	5,9425	2,2205	780	100,6646	5,1000	3,8402	2,1974
85	99,4232	1,8400	0,0000	2,0655	435	100,9000	9,3500	6,0511	2,2216	785	100,6552	5,0125	3,7584	2,1965
90	99,4208	1,8600	0,0000	2,0652	440	100,9102	9,4000	6,1545	2,2226	790	100,6456	4,9250	3,6766	2,1955
95	99,4186	1,8800	0,0000	2,0650	445	100,9199	9,4500	6,2532	2,2236	795	100,6360	4,8375	3,5950	2,1945
100	99,4166	1,9000	0,0000	2,0648	450	100,9292	9,5000	6,3476	2,2245	800	100,6264	4,7500	3,5134	2,1935
105	99,4149	1,9200	0,0000	2,0646	455	100,9380	9,5500	6,4380	2,2254	805	100,6167	4,6625	3,4320	2,1925
110	99,4133	1,9400	0,0000	2,0644	460	100,9464	9,6000	6,5248	2,2263	810	100,6069	4,5750	3,3506	2,1915
115	99,4120	1,9600	0,0000	2,0643	465	100,9544	9,6500	6,6082	2,2271	815	100,5970	4,4875	3,2693	2,1904
120	99,4110	1,9800	0,0000	2,0641	470	100,9622	9,7000	6,6887	2,2279	820	100,5871	4,4000	3,1882	2,1894
125	99,4101	2,0000	0,0000	2,0640	475	100,9696	9,7500	6,7663	2,2286	825	100,5771	4,3125	3,1072	2,1884
130	99,4095	2,0200	0,0000	2,0640	480	100,9768	9,8000	6,8414	2,2294	830	100,5671	4,2250	3,0263	2,1873
135	99,4091	2,0400	0,0000	2,0639	485	100,9837	9,8500	6,9142	2,2301	835	100,5569	4,1375	2,9456	2,1863
140	99,4090	2,0600	0,0000	2,0639	490	100,9904	9,9000	6,9849	2,2308	840	100,5467	4,0500	2,8650	2,1852
145	99,4090	2,0800	0,0000	2,0639	495	100,9969	9,9500	7,0537	2,2314	845	100,5364	3,9625	2,7846	2,1842
150	99,4093	2,1000	0,0000	2,0640	500	101,0032	10,0000	7,1208	2,2321	850	100,5261	3,8750	2,7043	2,1831
155	99,4099	2,1200	0,0000	2,0640	505	101,0087	9,9125	7,1795	2,2326	855	100,5156	3,7875	2,6242	2,1820
160	99,4106	2,1400	0,0000	2,0641	510	101,0128	9,8250	7,2241	2,2330	860	100,5051	3,7000	2,5443	2,1809
165	99,4116	2,1600	0,0000	2,0642	515	101,0158	9,7375	7,2558	2,2333	865	100,4945	3,6125	2,4646	2,1798
170	99,4128	2,1800	0,0000	2,0643	520	101,0177	9,6500	7,2758	2,2335	870	100,4838	3,5250	2,3851	2,1787
175	99,4142	2,2000	0,0000	2,0645	525	101,0186	9,5625	7,2852	2,2336	875	100,4731	3,4375	2,3059	2,1776
180	99,4159	2,2200	0,0000	2,0647	530	101,0186	9,4750	7,2852	2,2336	880	100,4622	3,3500	2,2268	2,1765
185	99,4177	2,2400	0,0000	2,0649	535	101,0178	9,3875	7,2767	2,2335	885	100,4512	3,2625	2,1480	2,1753
190	99,4198	2,2600	0,0000	2,0651	540	101,0162	9,3000	7,2604	2,2334	890	100,4402	3,1750	2,0695	2,1742
195	99,4221	2,2800	0,0000	2,0654	545	101,0141	9,2125	7,2372	2,2332	895	100,4290	3,0875	1,9913	2,1730
200	99,4247	2,3000	0,0000	2,0656	550	101,0113	9,1250	7,2077	2,2329	900	100,4177	3,0000	1,9133	2,1718
205	99,4289	2,5850	0,0000	2,0661	555	101,0080	9,0375	7,1727	2,2326	905	100,4067	2,9750	1,8379	2,1707
210	99,4364	2,8700	0,0000	2,0669	560	101,0043	8,9500	7,1326	2,2322	910	100,3960	2,9500	1,7667	2,1696
215	99,4471	3,1550	0,0000	2,0681	565	101,0001	8,8625	7,0880	2,2317	915	100,3860	2,9250	1,6996	2,1685
220	99,4610	3,4400	0,0000	2,0696	570	100,9955	8,7750	7,0393	2,2313	920	100,3763	2,9000	1,6360	2,1675
225	99,4781	3,7250	0,0000	2,0715	575	100,9906	8,6875	6,9870	2,2308	925	100,3670	2,8750	1,5757	2,1665
230	99,4984	4,0100	0,0000	2,0737	580	100,9853	8,6000	6,9315	2,2302	930	100,3581	2,8500	1,5185	2,1656
235	99,5219	4,2950	0,0000	2,0763	585	100,9798	8,5125	6,8730	2,2297	935	100,3494	2,8250	1,4639	2,1647
240	99,5485	4,5800	0,0000	2,0792	590	100,9739	8,4250	6,8119	2,2291	940	100,3411	2,8000	1,4119	2,1638
245	99,5783	4,8650	0,0000	2,0824	595	100,9679	8,3375	6,7484	2,2285	945	100,3331	2,7750	1,3622	2,1630
250	99,6112	5,1500	0,0000	2,0860	600	100,9616	8,2500	6,6828	2,2278	950	100,3252	2,7500	1,3146	2,1622
255	99,6473	5,4350	0,0000	2,0899	605	100,9551	8,1625	6,6154	2,2272	955	100,3177	2,7250	1,2689	2,1614
260	99,6864	5,7200	0,0000	2,0942	610	100,9484	8,0750	6,5462	2,2265	960	100,3103	2,7000	1,2250	2,1606
265	99,7287	6,0050	0,0000	2,0987	615	100,9416	7,9875	6,4756	2,2258	965	100,3031	2,6750	1,1828	2,1598
270	99,7740	6,2900	0,0000	2,1036	620	100,9346	7,9000	6,4036	2,2251	970	100,2961	2,6500	1,1421	2,1591
275	99,8224	6,5750	0,0000	2,1088	625	100,9275	7,8125	6,3303	2,2244	975	100,2893	2,6250	1,1027	2,1584
280	99,8739	6,8600	0,0000	2,1143	630	100,9202	7,7250	6,2560	2,2236	980	100,2826	2,6000	1,0647	2,1577
285	99,9283	7,1450	0,0000	2,1202	635	100,9128	7,6375	6,1808	2,2229	985	100,2760	2,5750	1,0278	2,1570
290	99,9858	7,4300	0,0000	2,1263	640	100,9053	7,5500	6,1047	2,2221	990	100,2696	2,5500	0,9921	2,1563
295	100,0457	7,7150	0,0692	2,1327	645	100,8977	7,4625	6,0278	2,2213	995	100,2633	2,5250	0,9573	2,1557
300	100,1068	8,0000	0,2472	2,1391	650	100,8900	7,3750	5,9502	2,2205	1000	100,2570	2,5000	0,9236	2,1550
305	100,1668	8,0500	0,4828	2,1455	655	100,8822	7,2875	5,8720	2,2197	1005	100,2509	2,4750	0,8907	2,1543
310	100,2241	8,1000	0,7517	2,1515	660	100,8743	7,2000	5,7933	2,2189	1010	100,2448	2,4500	0,8586	2,1537
315	100,2783	8,1500	1,0407	2,1572	665	100,8663	7,1125	5,7141	2,2181	1015	100,2389	2,4250	0,8273	2,1531
320	100,3295	8,2000	1,3406	2,1626	670	100,8582	7,0250	5,6345	2,2173	1020	100,2329	2,4000	0,7968	2,1525
325	100,3776	8,2500	1,6446	2,1676	675	100,8501	6,9375	5,5545	2,2165	1025	100,2271	2,3750	0,7669	2,1518
330	100,4227	8,3000	1,9477	2,1723	680	100,8418	6,8500	5,4742	2,2156	1030	100,2213	2,3500	0,7376	2,1512
335	100,4648	8,3500	2,2461	2,1767	685	100,8336	6,7625	5,3936	2,2148	1035	100,2155	2,3250	0,7090	2,1506
340	100,5042	8,4000	2,5370	2,1808	690	100,8252	6,6750	5,3127	2,2139	1040	100,2098	2,3000	0,6809	2,1500
345	100,5408	8,4500	2,8184	2,1846	695	100,8168	6,5875	5,2316	2,2131	1045	100,2041	2,2750	0,6533	2,1494

Tablica 3 – nastavak 1 Rezultati proračuna za dužinu preljevnog praga B_3 = 4 m

t(s)	h(m.n.m.)	Qo (m^3/s)	Qp (m^3/s)	Q1 (m^3/s)
1050	100,1984	2,2500	0,6263	2,1488
1055	100,1927	2,2250	0,5997	2,1482
1060	100,1871	2,2000	0,5736	2,1476
1065	100,1815	2,1750	0,5480	2,1470
1070	100,1759	2,1500	0,5227	2,1464
1075	100,1703	2,1250	0,4979	2,1459
1080	100,1646	2,1000	0,4734	2,1453
1085	100,1590	2,0750	0,4494	2,1447
1090	100,1534	2,0500	0,4257	2,1441
1095	100,1477	2,0250	0,4024	2,1435
1100	100,1421	2,0000	0,3795	2,1429
1105	100,1364	1,9750	0,3569	2,1423
1110	100,1307	1,9500	0,3347	2,1417
1115	100,1249	1,9250	0,3129	2,1411
1120	100,1191	1,9000	0,2914	2,1404
1125	100,1133	1,8750	0,2703	2,1398
1130	100,1074	1,8500	0,2496	2,1392
1135	100,1015	1,8250	0,2293	2,1386
1140	100,0956	1,8000	0,2093	2,1380
1145	100,0895	1,7750	0,1899	2,1373
1150	100,0835	1,7500	0,1709	2,1367
1155	100,0773	1,7250	0,1523	2,1360
1160	100,0711	1,7000	0,1343	2,1354
1165	100,0648	1,6750	0,1168	2,1347
1170	100,0584	1,6500	0,1000	2,1340
1175	100,0519	1,6250	0,0838	2,1333
1180	100,0453	1,6000	0,0684	2,1326
1185	100,0386	1,5750	0,0538	2,1319
1190	100,0318	1,5500	0,0403	2,1312
1195	100,0249	1,5250	0,0278	2,1305
1200	100,0178	1,5000	0,0168	2,1297
1205	100,0107	1,5000	0,0078	2,1289
1210	100,0037	1,5000	0,0016	2,1282
1215	99,9967	1,5000	0,0000	2,1274
1220	99,9897	1,5000	0,0000	2,1267
1225	99,9828	1,5000	0,0000	2,1260
1230	99,9758	1,5000	0,0000	2,1252
1235	99,9688	1,5000	0,0000	2,1245
1240	99,9619	1,5000	0,0000	2,1237
1245	99,9550	1,5000	0,0000	2,1230
1250	99,9480	1,5000	0,0000	2,1223
1255	99,9411	1,5000	0,0000	2,1215
1260	99,9342	1,5000	0,0000	2,1208
1265	99,9273	1,5000	0,0000	2,1200
1270	99,9204	1,5000	0,0000	2,1193
1275	99,9135	1,5000	0,0000	2,1186
1280	99,9066	1,5000	0,0000	2,1178
1285	99,8997	1,5000	0,0000	2,1171
1290	99,8928	1,5000	0,0000	2,1164
1295	99,8860	1,5000	0,0000	2,1156
1300	99,8791	1,5000	0,0000	2,1149
1305	99,8723	1,5000	0,0000	2,1142
1310	99,8654	1,5000	0,0000	2,1134
1315	99,8586	1,5000	0,0000	2,1127
1320	99,8517	1,5000	0,0000	2,1120
1325	99,8449	1,5000	0,0000	2,1112
1330	99,8381	1,5000	0,0000	2,1105
1335	99,8313	1,5000	0,0000	2,1098
1340	99,8244	1,5000	0,0000	2,1090
1345	99,8176	1,5000	0,0000	2,1083
1350	99,8108	1,5000	0,0000	2,1076
1355	99,8041	1,5000	0,0000	2,1068
1360	99,7973	1,5000	0,0000	2,1061
1365	99,7905	1,5000	0,0000	2,1054
1370	99,7837	1,5000	0,0000	2,1046
1375	99,7770	1,5000	0,0000	2,1039
1380	99,7702	1,5000	0,0000	2,1032
1385	99,7635	1,5000	0,0000	2,1025
1390	99,7567	1,5000	0,0000	2,1017
1395	99,7500	1,5000	0,0000	2,1010
1400	99,7432	1,5000	0,0000	2,1003
1405	99,7365	1,5000	0,0000	2,0996
1410	99,7298	1,5000	0,0000	2,0988
1415	99,7231	1,5000	0,0000	2,0981
1420	99,7164	1,5000	0,0000	2,0974
1425	99,7097	1,5000	0,0000	2,0967
1430	99,7030	1,5000	0,0000	2,0959
1435	99,6963	1,5000	0,0000	2,0952
1440	99,6896	1,5000	0,0000	2,0945
1445	99,6830	1,5000	0,0000	2,0938
1450	99,6763	1,5000	0,0000	2,0931
1455	99,6696	1,5000	0,0000	2,0923
1460	99,6630	1,5000	0,0000	2,0916
1465	99,6563	1,5000	0,0000	2,0909
1470	99,6497	1,5000	0,0000	2,0902
1475	99,6431	1,5000	0,0000	2,0895
1480	99,6364	1,5000	0,0000	2,0887
1485	99,6298	1,5000	0,0000	2,0880
1490	99,6232	1,5000	0,0000	2,0873
1495	99,6166	1,5000	0,0000	2,0866
1500	99,6100	1,5000	0,0000	2,0859
1505	99,6034	1,5000	0,0000	2,0852
1510	99,5968	1,5000	0,0000	2,0844
1515	99,5903	1,5000	0,0000	2,0837
1520	99,5837	1,5000	0,0000	2,0830
1525	99,5771	1,5000	0,0000	2,0823
1530	99,5706	1,5000	0,0000	2,0816
1535	99,5640	1,5000	0,0000	2,0809
1540	99,5575	1,5000	0,0000	2,0802
1545	99,5509	1,5000	0,0000	2,0794
1550	99,5444	1,5000	0,0000	2,0787
1555	99,5379	1,5000	0,0000	2,0780
1560	99,5313	1,5000	0,0000	2,0773
1565	99,5248	1,5000	0,0000	2,0766
1570	99,5183	1,5000	0,0000	2,0759
1575	99,5118	1,5000	0,0000	2,0752
1580	99,5053	1,5000	0,0000	2,0745
1585	99,4988	1,5000	0,0000	2,0738
1590	99,4924	1,5000	0,0000	2,0731
1595	99,4859	1,5000	0,0000	2,0723
1600	99,4794	1,5000	0,0000	2,0716
1605	99,4730	1,5000	0,0000	2,0709
1610	99,4665	1,5000	0,0000	2,0702
1615	99,4601	1,5000	0,0000	2,0695
1620	99,4536	1,5000	0,0000	2,0688
1625	99,4472	1,5000	0,0000	2,0681
1630	99,4408	1,5000	0,0000	2,0674
1635	99,4343	1,5000	0,0000	2,0667
1640	99,4279	1,5000	0,0000	2,0660
1645	99,4215	1,5000	0,0000	2,0653
1650	99,4151	1,5000	0,0000	2,0646
1655	99,4087	1,5000	0,0000	2,0639
1660	99,4023	1,5000	0,0000	2,0632
1665	99,3960	1,5000	0,0000	2,0625
1670	99,3896	1,5000	0,0000	2,0618
1675	99,3832	1,5000	0,0000	2,0611
1680	99,3768	1,5000	0,0000	2,0604
1685	99,3705	1,5000	0,0000	2,0597
1690	99,3641	1,5000	0,0000	2,0590
1695	99,3578	1,5000	0,0000	2,0583
1700	99,3515	1,5000	0,0000	2,0576
1705	99,3451	1,5000	0,0000	2,0569
1710	99,3388	1,5000	0,0000	2,0562
1715	99,3325	1,5000	0,0000	2,0555
1720	99,3262	1,5000	0,0000	2,0548
1725	99,3199	1,5000	0,0000	2,0541
1730	99,3136	1,5000	0,0000	2,0534
1735	99,3073	1,5000	0,0000	2,0527
1740	99,3010	1,5000	0,0000	2,0520
1745	99,2947	1,5000	0,0000	2,0513
1750	99,2885	1,5000	0,0000	2,0506
1755	99,2822	1,5000	0,0000	2,0500
1760	99,2759	1,5000	0,0000	2,0493
1765	99,2697	1,5000	0,0000	2,0486
1770	99,2635	1,5000	0,0000	2,0479
1775	99,2572	1,5000	0,0000	2,0472
1780	99,2510	1,5000	0,0000	2,0465
1785	99,2448	1,5000	0,0000	2,0458
1790	99,2385	1,5000	0,0000	2,0451
1795	99,2323	1,5000	0,0000	2,0444
1800	99,2261	1,5000	0,0000	2,0437
1805	99,2199	1,5000	0,0000	2,0431
1810	99,2137	1,5000	0,0000	2,0424
1815	99,2075	1,5000	0,0000	2,0417
1820	99,2014	1,5000	0,0000	2,0410
1825	99,1952	1,5000	0,0000	2,0403
1830	99,1890	1,5000	0,0000	2,0396
1835	99,1829	1,5000	0,0000	2,0389
1840	99,1767	1,5000	0,0000	2,0383
1845	99,1706	1,5000	0,0000	2,0376
1850	99,1644	1,5000	0,0000	2,0369
1855	99,1583	1,5000	0,0000	2,0362
1860	99,1522	1,5000	0,0000	2,0355
1865	99,1461	1,5000	0,0000	2,0349
1870	99,1399	1,5000	0,0000	2,0342
1875	99,1338	1,5000	0,0000	2,0335
1880	99,1277	1,5000	0,0000	2,0328
1885	99,1216	1,5000	0,0000	2,0321
1890	99,1156	1,5000	0,0000	2,0315
1895	99,1095	1,5000	0,0000	2,0308
1900	99,1034	1,5000	0,0000	2,0301
1905	99,0973	1,5000	0,0000	2,0294
1910	99,0913	1,5000	0,0000	2,0287
1915	99,0852	1,5000	0,0000	2,0281
1920	99,0792	1,5000	0,0000	2,0274
1925	99,0731	1,5000	0,0000	2,0267
1930	99,0671	1,5000	0,0000	2,0260
1935	99,0611	1,5000	0,0000	2,0254
1940	99,0550	1,5000	0,0000	2,0247
1945	99,0490	1,5000	0,0000	2,0240
1950	99,0430	1,5000	0,0000	2,0233
1955	99,0370	1,5000	0,0000	2,0227
1960	99,0310	1,5000	0,0000	2,0220
1965	99,0250	1,5000	0,0000	2,0213
1970	99,0190	1,5000	0,0000	2,0207
1975	99,0131	1,5000	0,0000	2,0200
1980	99,0071	1,5000	0,0000	2,0193
1985	99,0011	1,5000	0,0000	2,0187
1990	98,9952	1,5000	0,0000	2,0180
1995	98,9892	1,5000	0,0000	2,0173
2000	98,9833	1,5000	0,0000	2,0166
2005	98,9773	1,5000	0,0000	2,0160
2010	98,9714	1,5000	0,0000	2,0153
2015	98,9655	1,5000	0,0000	2,0146
2020	98,9595	1,5000	0,0000	2,0140
2025	98,9536	1,5000	0,0000	2,0133
2030	98,9477	1,5000	0,0000	2,0127
2035	98,9418	1,5000	0,0000	2,0120
2040	98,9359	1,5000	0,0000	2,0113
2045	98,9300	1,5000	0,0000	2,0107
2050	98,9242	1,5000	0,0000	2,0100
2055	98,9183	1,5000	0,0000	2,0093
2060	98,9124	1,5000	0,0000	2,0087
2065	98,9066	1,5000	0,0000	2,0080
2070	98,9007	1,5000	0,0000	2,0074
2075	98,8949	1,5000	0,0000	2,0067
2080	98,8890	1,5000	0,0000	2,0060
2085	98,8832	1,5000	0,0000	2,0054
2090	98,8774	1,5000	0,0000	2,0047
2095	98,8715	1,5000	0,0000	2,0041

Tablica 3 – nastavak 2 Rezultati proračuna za dužinu preljevnog praga $B_3 = 4\ m$

t(s)	h(m.n.m.)	Qo (m^3/s)	Qp (m^3/s)	Q1 (m^3/s)
2100	98,8657	1,5000	0,0000	2,0034
2105	98,8599	1,5000	0,0000	2,0027
2110	98,8541	1,5000	0,0000	2,0021
2115	98,8483	1,5000	0,0000	2,0014
2120	98,8425	1,5000	0,0000	2,0008
2125	98,8367	1,5000	0,0000	2,0001
2130	98,8309	1,5000	0,0000	1,9995
2135	98,8252	1,5000	0,0000	1,9988
2140	98,8194	1,5000	0,0000	1,9982
2145	98,8137	1,5000	0,0000	1,9975
2150	98,8079	1,5000	0,0000	1,9969
2155	98,8022	1,5000	0,0000	1,9962
2160	98,7964	1,5000	0,0000	1,9955
2165	98,7907	1,5000	0,0000	1,9949
2170	98,7850	1,5000	0,0000	1,9942
2175	98,7792	1,5000	0,0000	1,9936
2180	98,7735	1,5000	0,0000	1,9929
2185	98,7678	1,5000	0,0000	1,9923
2190	98,7621	1,5000	0,0000	1,9917
2195	98,7564	1,5000	0,0000	1,9910
2200	98,7507	1,5000	0,0000	1,9904
2205	98,7450	1,5000	0,0000	1,9897
2210	98,7394	1,5000	0,0000	1,9891
2215	98,7337	1,5000	0,0000	1,9884
2220	98,7280	1,5000	0,0000	1,9878
2225	98,7224	1,5000	0,0000	1,9871
2230	98,7167	1,5000	0,0000	1,9865
2235	98,7111	1,5000	0,0000	1,9858
2240	98,7055	1,5000	0,0000	1,9852
2245	98,6998	1,5000	0,0000	1,9846
2250	98,6942	1,5000	0,0000	1,9839
2255	98,6886	1,5000	0,0000	1,9833
2260	98,6830	1,5000	0,0000	1,9826
2265	98,6774	1,5000	0,0000	1,9820
2270	98,6718	1,5000	0,0000	1,9813
2275	98,6662	1,5000	0,0000	1,9807
2280	98,6606	1,5000	0,0000	1,9801
2285	98,6550	1,5000	0,0000	1,9794
2290	98,6494	1,5000	0,0000	1,9788
2295	98,6439	1,5000	0,0000	1,9782
2300	98,6383	1,5000	0,0000	1,9775
2305	98,6327	1,5000	0,0000	1,9769
2310	98,6272	1,5000	0,0000	1,9762
2315	98,6217	1,5000	0,0000	1,9756
2320	98,6161	1,5000	0,0000	1,9750
2325	98,6106	1,5000	0,0000	1,9743
2330	98,6051	1,5000	0,0000	1,9737
2335	98,5995	1,5000	0,0000	1,9731
2340	98,5940	1,5000	0,0000	1,9724
2345	98,5885	1,5000	0,0000	1,9718
2350	98,5830	1,5000	0,0000	1,9712
2355	98,5775	1,5000	0,0000	1,9705
2360	98,5721	1,5000	0,0000	1,9699
2365	98,5666	1,5000	0,0000	1,9693
2370	98,5611	1,5000	0,0000	1,9687
2375	98,5556	1,5000	0,0000	1,9680
2380	98,5502	1,5000	0,0000	1,9674
2385	98,5447	1,5000	0,0000	1,9668
2390	98,5393	1,5000	0,0000	1,9661
2395	98,5338	1,5000	0,0000	1,9655
2400	98,5284	1,5000	0,0000	1,9649
2405	98,5230	1,5000	0,0000	1,9643
2410	98,5176	1,5000	0,0000	1,9636
2415	98,5121	1,5000	0,0000	1,9630
2420	98,5067	1,5000	0,0000	1,9624
2425	98,5013	1,5000	0,0000	1,9618
2430	98,4959	1,5000	0,0000	1,9611
2435	98,4905	1,5000	0,0000	1,9605
2440	98,4851	1,5000	0,0000	1,9599
2445	98,4798	1,5000	0,0000	1,9593

t(s)	h(m.n.m.)	Qo (m^3/s)	Qp (m^3/s)	Q1 (m^3/s)
2450	98,4744	1,5000	0,0000	1,9587
2455	98,4690	1,5000	0,0000	1,9580
2460	98,4637	1,5000	0,0000	1,9574
2465	98,4583	1,5000	0,0000	1,9568
2470	98,4530	1,5000	0,0000	1,9562
2475	98,4476	1,5000	0,0000	1,9556
2480	98,4423	1,5000	0,0000	1,9549
2485	98,4370	1,5000	0,0000	1,9543
2490	98,4316	1,5000	0,0000	1,9537
2495	98,4263	1,5000	0,0000	1,9531
2500	98,4210	1,5000	0,0000	1,9525
2505	98,4157	1,5000	0,0000	1,9519
2510	98,4104	1,5000	0,0000	1,9512
2515	98,4051	1,5000	0,0000	1,9506
2520	98,3998	1,5000	0,0000	1,9500
2525	98,3946	1,5000	0,0000	1,9494
2530	98,3893	1,5000	0,0000	1,9488
2535	98,3840	1,5000	0,0000	1,9482
2540	98,3788	1,5000	0,0000	1,9476
2545	98,3735	1,5000	0,0000	1,9470
2550	98,3683	1,5000	0,0000	1,9463
2555	98,3630	1,5000	0,0000	1,9457
2560	98,3578	1,5000	0,0000	1,9451
2565	98,3526	1,5000	0,0000	1,9445
2570	98,3473	1,5000	0,0000	1,9439
2575	98,3421	1,5000	0,0000	1,9433
2580	98,3369	1,5000	0,0000	1,9427
2585	98,3317	1,5000	0,0000	1,9421
2590	98,3265	1,5000	0,0000	1,9415
2595	98,3213	1,5000	0,0000	1,9409
2600	98,3161	1,5000	0,0000	1,9403
2605	98,3109	1,5000	0,0000	1,9397
2610	98,3058	1,5000	0,0000	1,9391
2615	98,3006	1,5000	0,0000	1,9384
2620	98,2954	1,5000	0,0000	1,9378
2625	98,2903	1,5000	0,0000	1,9372
2630	98,2851	1,5000	0,0000	1,9366
2635	98,2800	1,5000	0,0000	1,9360
2640	98,2749	1,5000	0,0000	1,9354
2645	98,2697	1,5000	0,0000	1,9348
2650	98,2646	1,5000	0,0000	1,9342
2655	98,2595	1,5000	0,0000	1,9336
2660	98,2544	1,5000	0,0000	1,9330
2665	98,2493	1,5000	0,0000	1,9324
2670	98,2442	1,5000	0,0000	1,9318
2675	98,2391	1,5000	0,0000	1,9312
2680	98,2340	1,5000	0,0000	1,9306
2685	98,2289	1,5000	0,0000	1,9301
2690	98,2238	1,5000	0,0000	1,9295
2695	98,2188	1,5000	0,0000	1,9289
2700	98,2137	1,5000	0,0000	1,9283
2705	98,2086	1,5000	0,0000	1,9277
2710	98,2036	1,5000	0,0000	1,9271
2715	98,1986	1,5000	0,0000	1,9265
2720	98,1935	1,5000	0,0000	1,9259
2725	98,1885	1,5000	0,0000	1,9253
2730	98,1835	1,5000	0,0000	1,9247
2735	98,1784	1,5000	0,0000	1,9241
2740	98,1734	1,5000	0,0000	1,9235
2745	98,1684	1,5000	0,0000	1,9229
2750	98,1634	1,5000	0,0000	1,9223
2755	98,1584	1,5000	0,0000	1,9218
2760	98,1534	1,5000	0,0000	1,9212
2765	98,1484	1,5000	0,0000	1,9206
2770	98,1435	1,5000	0,0000	1,9200
2775	98,1385	1,5000	0,0000	1,9194
2780	98,1335	1,5000	0,0000	1,9188
2785	98,1286	1,5000	0,0000	1,9182
2790	98,1236	1,5000	0,0000	1,9177
2795	98,1187	1,5000	0,0000	1,9171

t(s)	h(m.n.m.)	Qo (m^3/s)	Qp (m^3/s)	Q1 (m^3/s)
2800	98,1137	1,5000	0,0000	1,9165
2805	98,1088	1,5000	0,0000	1,9159
2810	98,1039	1,5000	0,0000	1,9153
2815	98,0989	1,5000	0,0000	1,9147
2820	98,0940	1,5000	0,0000	1,9142
2825	98,0891	1,5000	0,0000	1,9136
2830	98,0842	1,5000	0,0000	1,9130
2835	98,0793	1,5000	0,0000	1,9124
2840	98,0744	1,5000	0,0000	1,9118
2845	98,0695	1,5000	0,0000	1,9113
2850	98,0646	1,5000	0,0000	1,9107
2855	98,0598	1,5000	0,0000	1,9101
2860	98,0549	1,5000	0,0000	1,9095
2865	98,0500	1,5000	0,0000	1,9089
2870	98,0452	1,5000	0,0000	1,9084
2875	98,0403	1,5000	0,0000	1,9078

3.3.   Grafički prikaz rezultata

Slika 3 Prikaz vodostaja za B_1, B_2, B_3
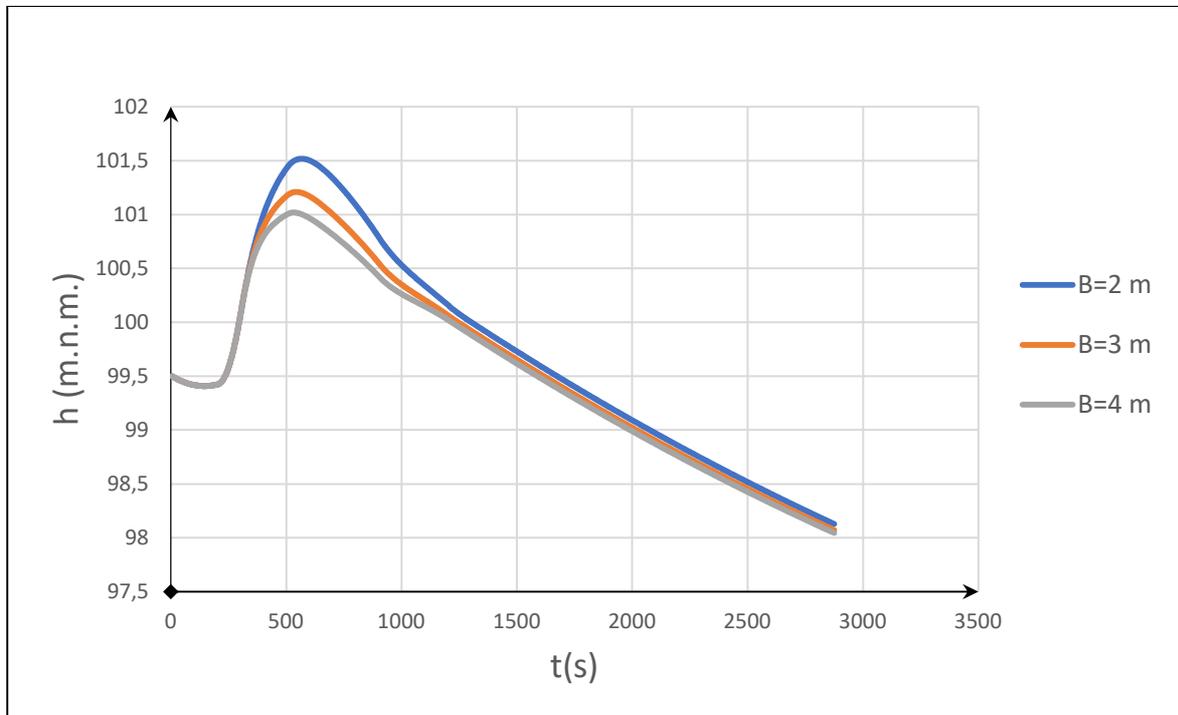
Slika 4 Prikaz dotoka, protoka kroz kratku cijev i preljevnog protoka za širinu preljevnog praga B=2m ovisno o vremenu
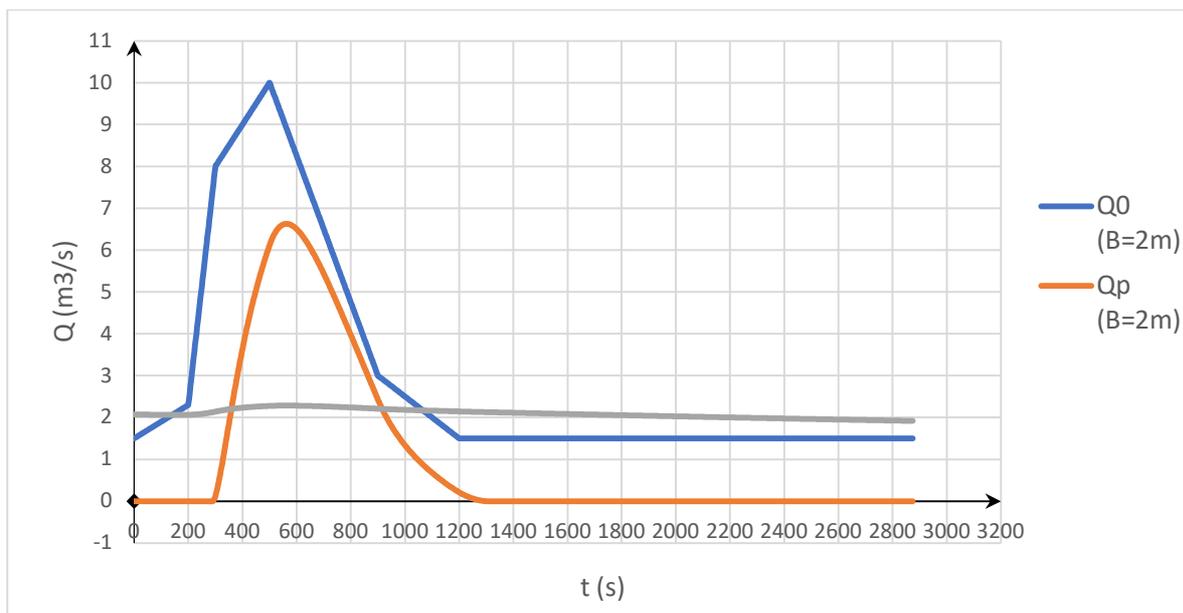
*Slika 5 Prikaz dotoka, protoka kroz kratku cijev i preljevnog protoka za širinu preljevnog praga B=3m ovisno o vremenu*
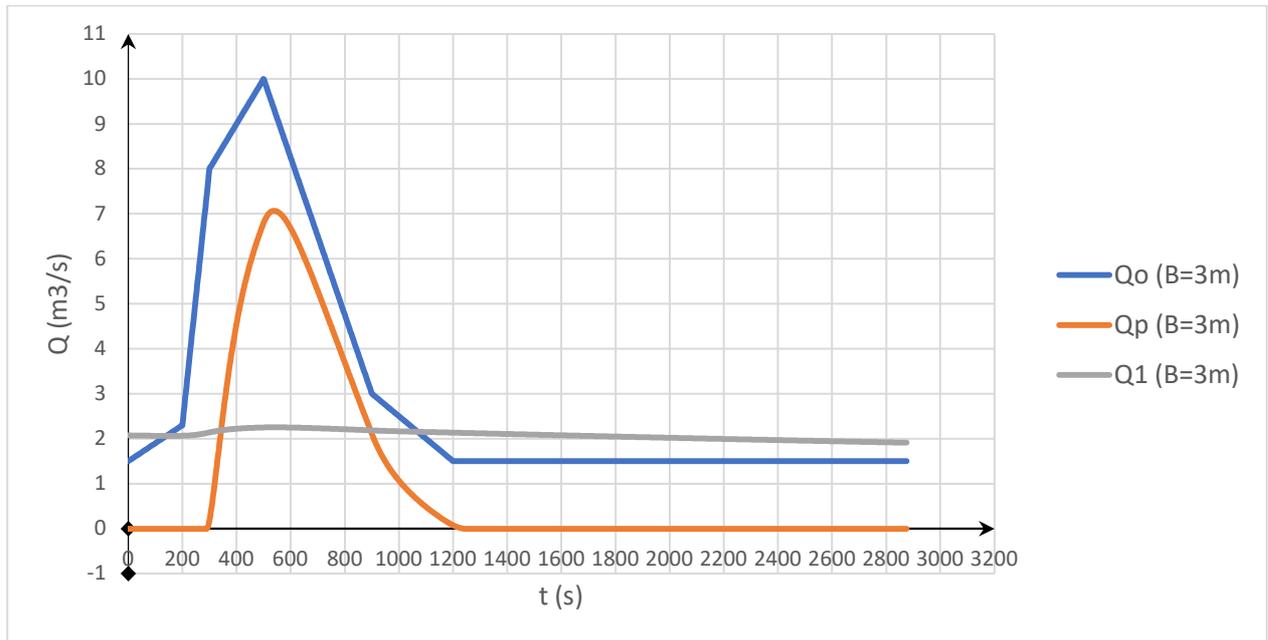
Slika 6 Prikaz dotoka , protoka kroz kratku cijev i preljevnog protoka za širinu preljevnog praga B=4m ovisno o vremenu
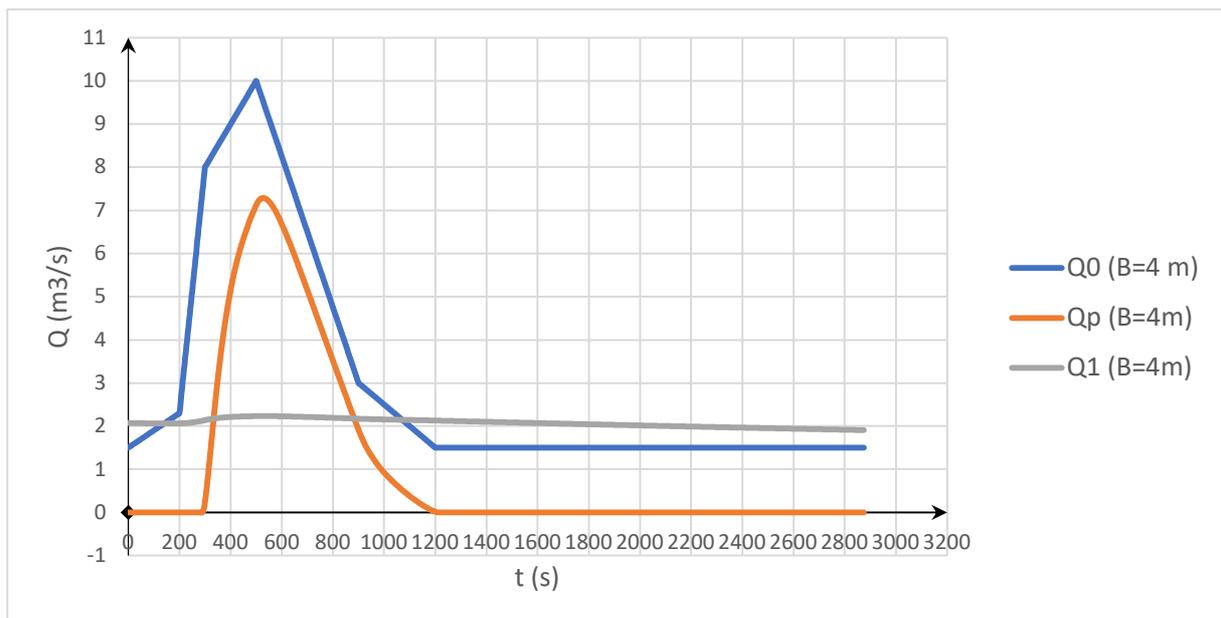
Slika 7 Prikaz dotoka za sve širine preljevnog praga ovisno o vremenu
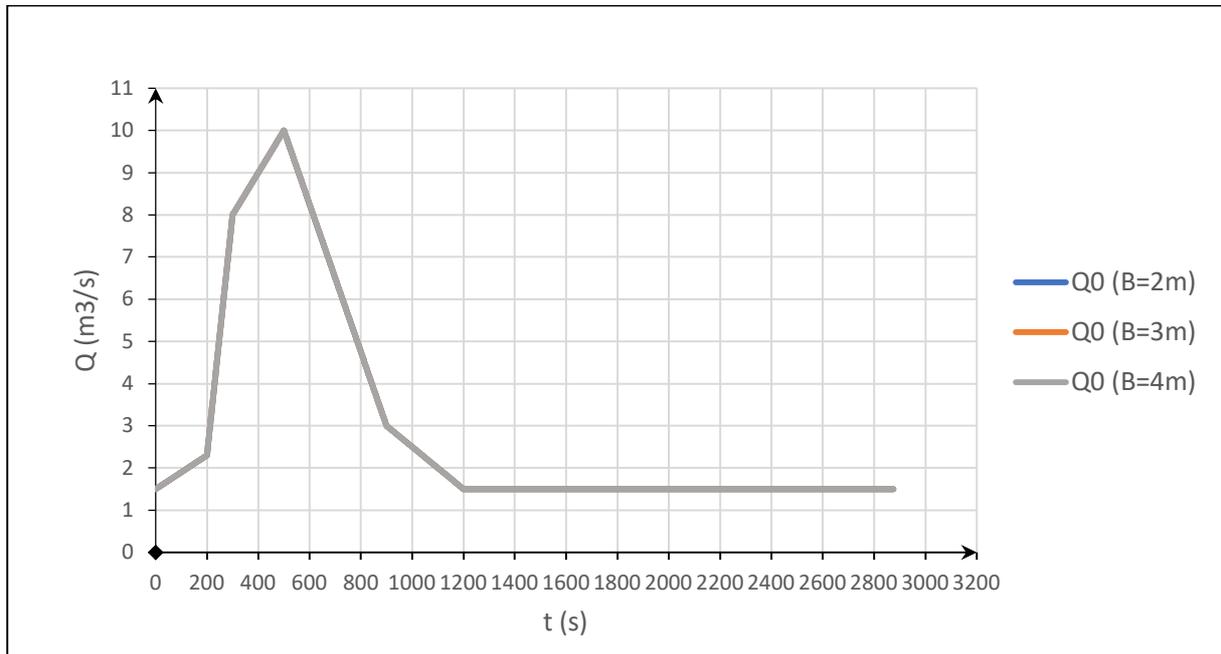
Slika 8 Prikaz protoka kroz kratku cijev za sve širine preljevnog praga ovisno o vremenu
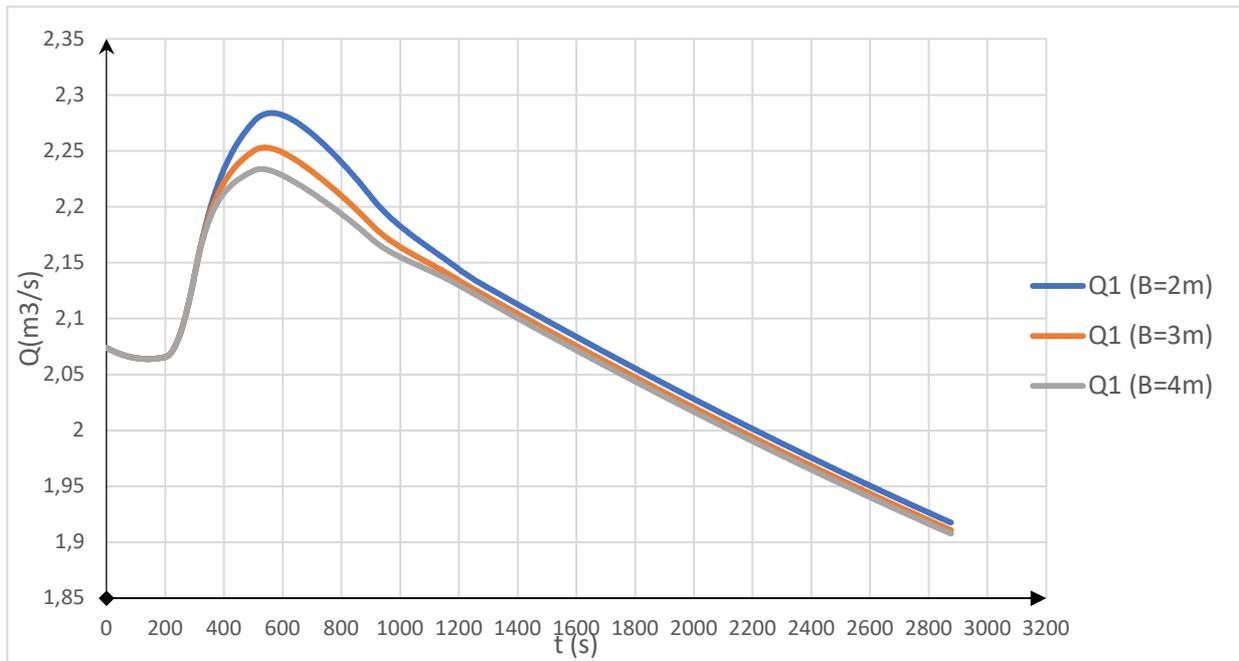
Slika 9 Prikaz preljevnog protoka za sve širine preljevnog praga ovisno o vremenu
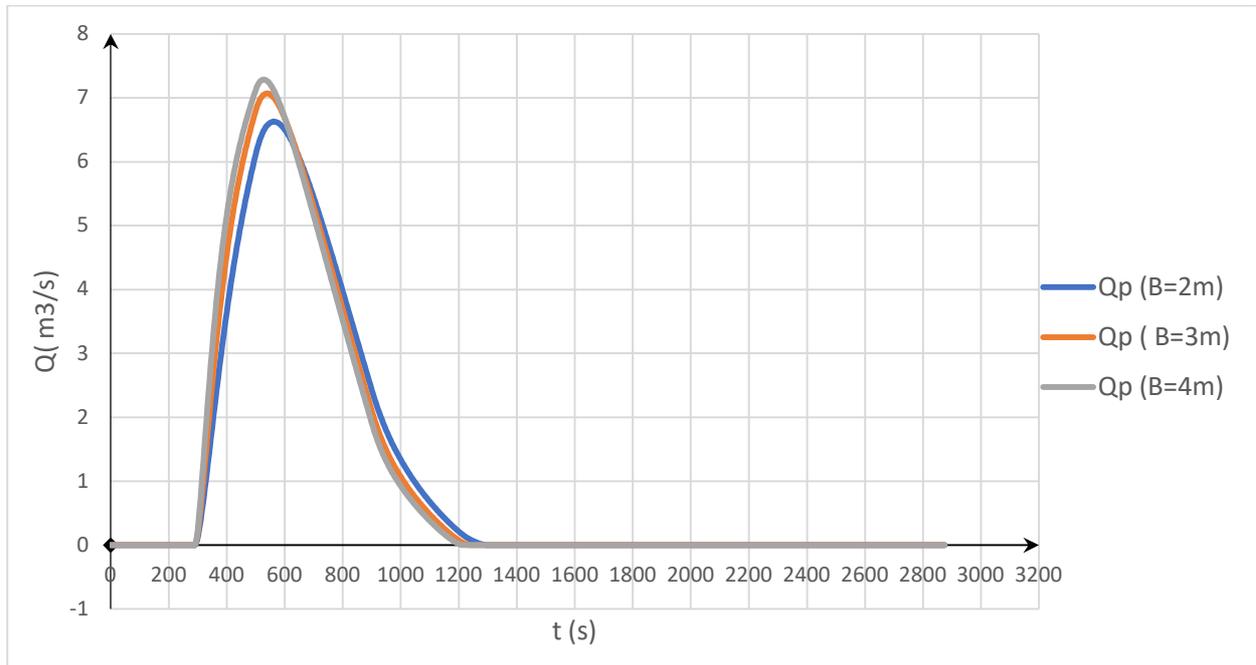
4. Utjecaj vremenskog koraka

Slika 10 Prikaz vodostaja za B=2m za različite vremenske korake
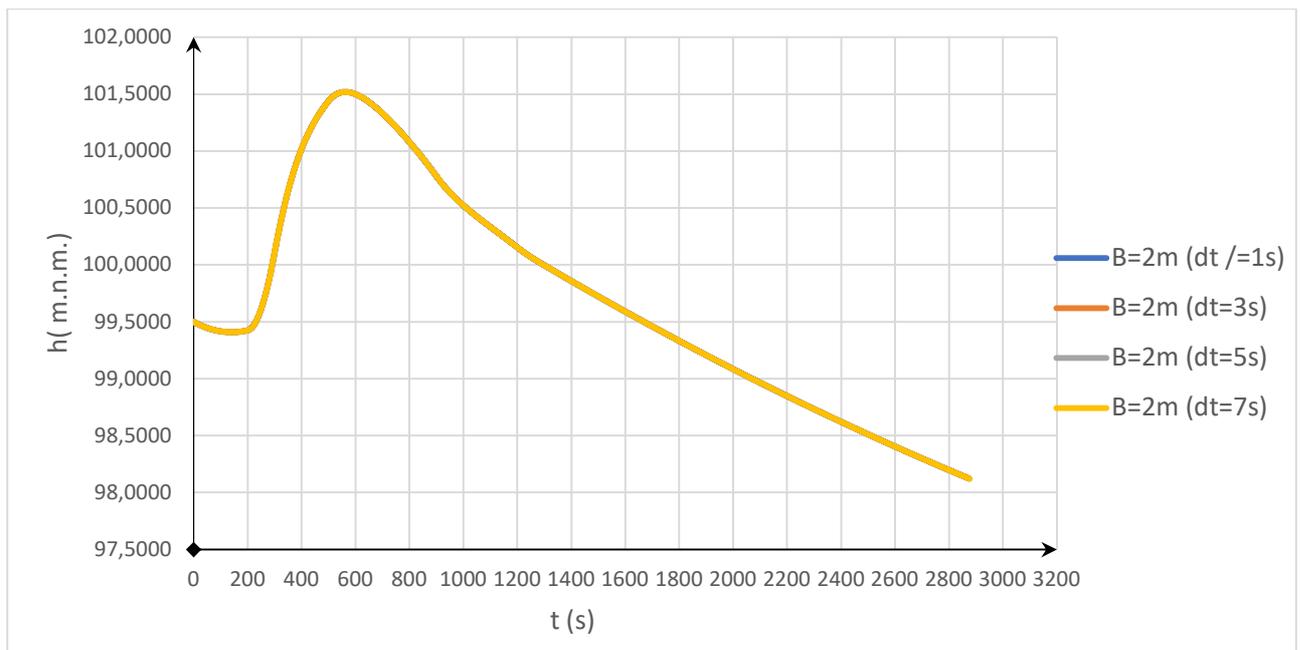
Slika 11 Prikaz protoka kroz kratku cijev B=2m za različite vremenske korake
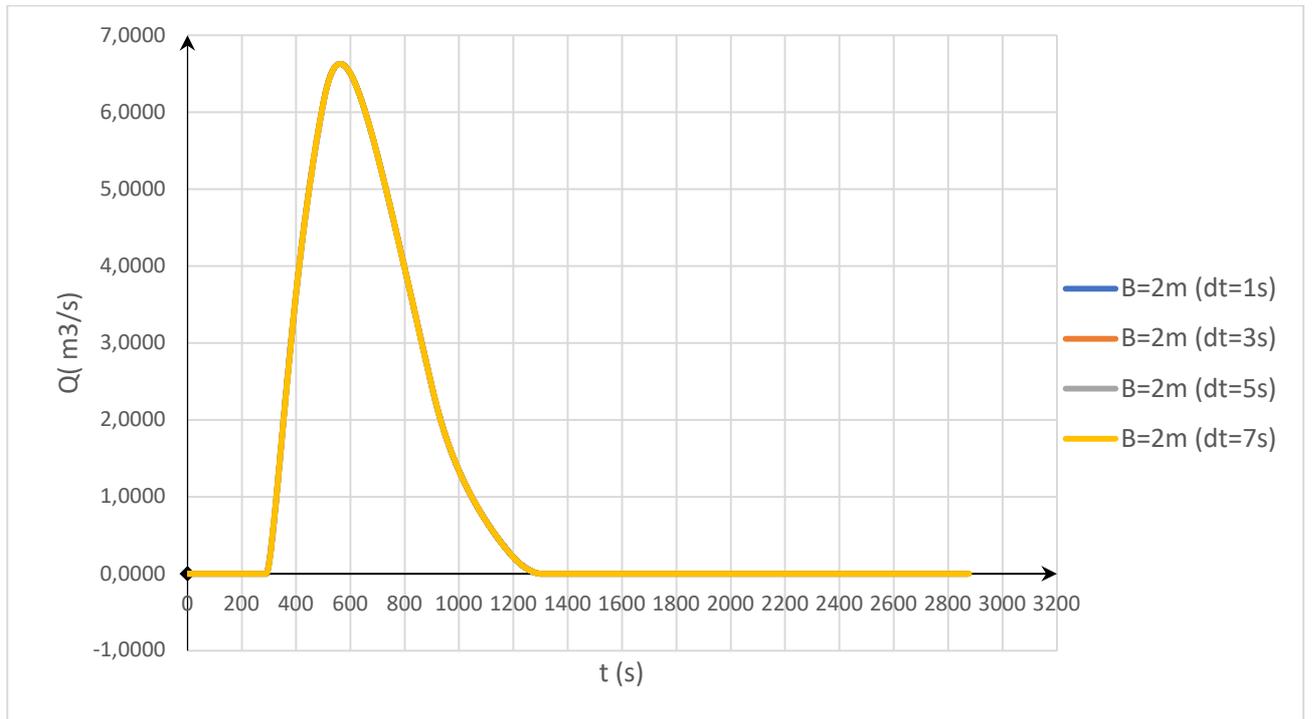
Slika 12 Prikaz preljevnog protoka B=2m za različite vremenske korake
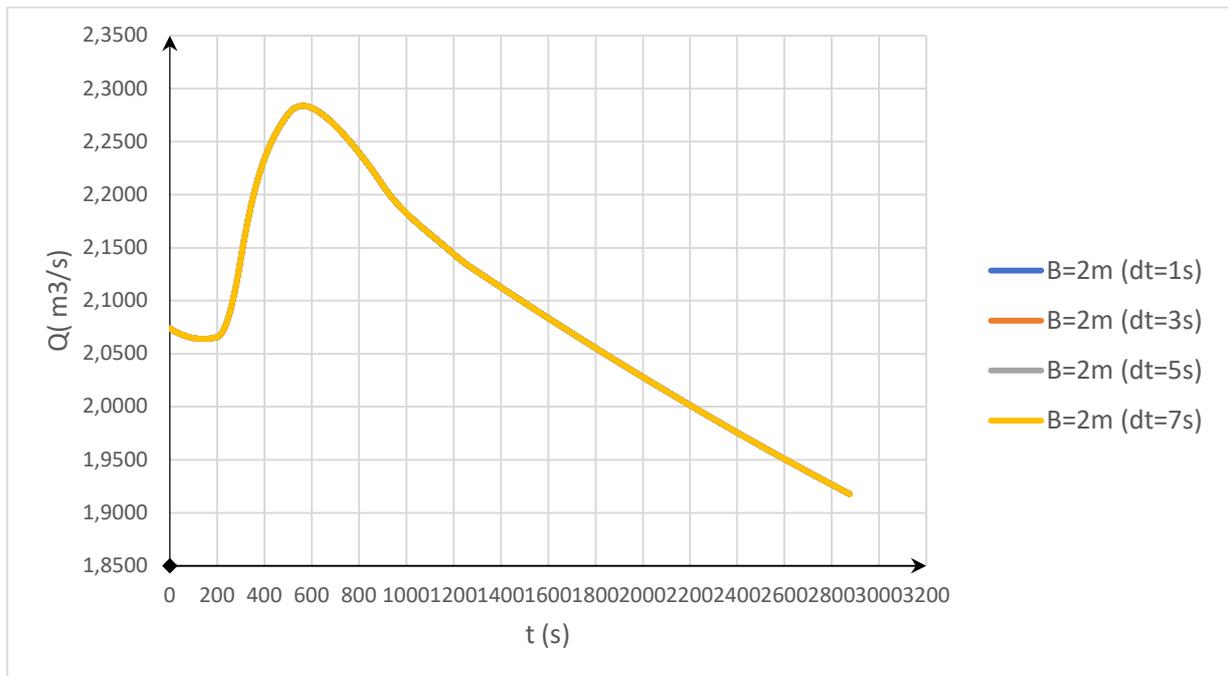
Prilikom izrade proračuna za analizu utjecaja vremenskog koraka širine preljevnog praga 2 m u programu Excell bilo je uočljivo da će se dijagrami krivulja u grafičkom dijelu poklopiti, što je i dokazano u priloženim grafovima.

Razlika vodostaja, protoka kroz kratku cijev i preljevnog protoka je minimalna.

5. Zaključak :

Problematika ovog rada odnosila se na otvoreni spremink s preljevom i ispusnom cijevi površine ovisne o vodostaju. Bilo je potrebno problem riješiti pomoću numeričke integracije mješovitim postupkom koristeći tablični kalkulator Excell. Dobivena su rješenja za 3 varijante dužine preljevnog praga te je istražen utjecaj vremenskog koraka na kvalitetu rješenja.

Na temelju grafičkih prikaza možemo zaključiti sljedeće:

- iz slike 3 vidljivo je da najveće razlike vodostaja za različite širine preljevnog praga nastaju nakon 500-te sekunde te se postupno približavaju jedna drugoj,
- iz slika 4, 5 i 6 na kojima su prikazani rezultati proračuna za sve zadane širine preljevnog praga, uočava se da su razlike u rezultatima očekivane, jer duži preljevni prag omogućava veći preljevnio protok, i manje vodostaje u vodospremniku,
- iz slika 10, 11, 12 - također se zaključuje da su razlike minimalne odnosno neprimjetne za različite vremenske korake. To je posljedica primjene mješovitog postupka numeričke integracije koja daje dobre rezultate i kod većih vremenskih intervala.

6. Literatura :

- doc.dr.sc. D. Bojanić, Hidromehanika, Predavanja
- dr.sc. V. Jović, Osnove Hidromehanike, Element, 2006
- dr.sc. S.I.Bradanović, Primjenjena matematika, predavanja