

BIUW



ENTWURFSHYDRAULIK

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WASSERVERBAND NIDDA

HOCHWASSERSCHUTZ AN DER NIDDA IN RANSTADT-DAUERNHEIM

STAND FEBRUAR 2021

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***           WSP - ASS 4.0 2013       ***
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***   BERECHNUNG STATIONAERER WASSERSPIEGELLAGEN   ***
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Büro für  
Ingenieurbiologie \* Umweltplanung \* Wasserbau

**BIUW Ingenieur GmbH**

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Projekt: Hochwasserschutz an der Nidda in Ranstadt-Dauernheim

Zustand: Entwurfshydraulik

Variante: HQ25

Abflussspende: 39 m<sup>3</sup>/s

ERGEBNISSE													
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STATION	WSPLAGE/H	ABFLUSS	K-WERT	BREITE	UMFANG	FLAECHE	GESCHW	HZV	E-HOEHE	FROUDE	ALPHA	KZW	KZD
ABFLUSS	NN+m/m	m3/s	m^0.33/s	m	m	m2	m/s	m	NN+m	IE o/oo	ALPHAS		
		6.37	23.0	48.80	48.81	17.42 *	0.37						
55 +	469.00	124.67	31.67	23.0	19.21	20.99	32.53	0.97	0.000	124.71	0.378	1.556	5 0
	39.00	2.26	0.96	23.0	31.67	31.68	4.70	0.20			1.00	1.199	
		0.00	23.0	0.00	0.00	0.00	0.00	0.00					
55 +	587.39	124.89	39.00	30.0	12.96	31.58	25.44	1.53	0.034	125.01	0.000	1.000	11 0
	39.00	2.71	0.00	23.0	0.00	0.00	0.00	0.00			3.48	1.000	
		0.33	23.0	4.49	4.52	1.23 *	0.27						
55 +	609.95	125.02	38.19	23.0	19.34	20.82	39.07	0.98	0.000	125.07	0.250	1.092	9 0
	39.00	2.84	0.48	23.0	6.68	6.74	1.81	0.27			0.78	1.039	
		12.39	23.0	61.55	61.67	38.59	0.32						
55 +	705.57	125.10	26.27	23.0	16.26	17.77	36.82	0.71	0.000	125.12	0.228	1.516	0 0
	39.00	2.87	0.35	23.0	21.14	21.18	2.94	0.12			0.36	1.172	
		11.28	23.0	63.39	63.46	35.73	0.32						
55 +	818.25	125.14	25.92	23.0	12.02	14.37	32.49	0.80	0.000	125.16	0.273	1.793	0 0
	39.00	3.37	1.81	23.0	34.59	34.70	9.35	0.19			0.41	1.254	
		0.94	23.0	13.55	13.71	3.60 *	0.26						
55 +	862.87	125.15	37.77	23.0	15.83	17.57	36.52	1.03	0.010	125.20	0.267	1.154	0 0
	39.00	3.08	0.29	23.0	3.13	3.19	1.00	0.29			0.76	1.065	
		1.07	23.0	7.69	7.74	3.71	0.29						
55 +	899.82	125.19	37.35	23.0	21.04	22.13	47.61	0.78	0.000	125.22	0.188	1.100	0 0
	39.00	3.06	0.58	23.0	2.92	3.12	1.80	0.33			0.42	1.040	
		3.03	23.0	4.53	4.58	5.34	0.57						
55 +	924.51	125.19	35.39	23.0	16.00	16.67	39.09	0.91	0.001	125.23	0.209	1.104	0 0
	39.00	3.03	0.57	23.0	6.42	6.54	2.26	0.25			0.50	1.041	
		0.00	23.0	0.00	0.00	0.00	0.00	0.00					
55 +	942.97	125.17	39.00	30.0	14.38	17.29	29.28	1.33	0.013	125.26	0.298	1.000	11 0
	39.00	2.24	0.00	23.0	0.00	0.00	0.00	0.00			0.98	1.000	
		0.00	23.0	0.00	0.00	0.00	0.00	0.00					
55 +	950.93	125.20	39.00	30.0	14.03	15.97	33.25	1.17	0.000	125.27	0.243	1.000	11 0
	39.00	2.85	0.00	23.0	0.00	0.00	0.00	0.00			0.57	1.000	
		0.00	23.0	0.00	0.00	0.00	0.00	0.00					
55 +	964.63	125.21	39.00	23.0	17.72	19.31	34.57	1.13	0.000	125.27	0.258	1.000	0 0
	39.00	2.75	0.00	23.0	0.01	0.23	0.00	0.02			1.11	1.000	

ERGEBNISSE														
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STATION	WSPLAGE/H		ABFLUSS	K-WERT	BREITE	UMFANG	FLAECHE	GESCHW	HZV	E-HOEHE	FROUDE	ALPHA	KZW	KZD
ABFLUSS	NN+m/m		m3/s	m^0.33/s	m	m	m2	m/s	m	NN+m	IE o/oo	ALPHAS		
56 +	0.15	125.25	1.53	23.0	2.86	2.90	2.70	0.57						
	39.00	2.87	37.47	23.0	16.82	18.09	38.30	0.98	0.000	125.30	0.215	1.030	0	0
			0.00	23.0	0.00	0.35	0.00	0.00			0.67	1.012		
56 +	54.64	125.28	3.75	23.0	5.70	5.74	5.31	0.71						
	39.00	2.78	35.25	23.0	13.98	15.02	29.91	1.18	0.001	125.35	0.278	1.063	0	0
			0.00	23.0	0.00	0.19	0.00	0.00			1.05	1.023		
56 +	93.49	125.35	12.25	23.0	24.57	24.68	28.72	0.43						
	39.00	2.71	26.75	23.0	18.82	18.01	40.46	0.66	0.000	125.37	0.157	1.123	0	0
			0.00	23.0	0.00	0.22	0.00	0.00			0.28	1.042		
56 +	127.16	125.36	5.73	23.0	36.57	36.57	17.40	0.33						
	39.00	2.88	32.86	23.0	16.12	18.41	39.02	0.84	0.001	125.39	0.253	1.358	0	0
			0.41	23.0	4.15	4.15	1.58	0.26			0.49	1.131		
56 +	129.69	125.36	0.26	23.0	7.79	8.36	1.70 *	0.15						
	39.00	2.90	38.74	27.0	17.22	18.27	42.74	0.91	0.002	125.40	0.198	1.060	0	0
			0.00	23.0	0.00	1.45	0.00	0.00			0.36	1.027		
56 +	133.32	125.37	3.61	23.0	22.30	22.30	11.50	0.31						
	39.00	3.00	34.88	23.0	17.59	19.68	42.61	0.82	0.000	125.40	0.227	1.278	0	0
			0.51	23.0	8.45	8.45	2.41	0.21			0.45	1.107		
56 +	170.10	125.38	2.62	23.0	10.06	10.07	6.59	0.40						
	39.00	2.65	35.02	23.0	21.69	23.35	47.49	0.74	0.000	125.41	0.197	1.171	0	0
			1.36	23.0	13.12	13.12	5.56	0.25			0.40	1.066		
56 +	186.36	125.39	0.25	23.0	2.09	2.09	1.20	0.21						
	39.00	3.30	38.45	23.0	25.22	27.81	69.96	0.55	0.000	125.41	0.113	1.046	0	0
			0.30	23.0	4.66	4.67	1.87	0.16			0.17	1.020		
56 +	202.62	125.40	0.16	23.0	2.43	2.43	1.09	0.15						
	39.00	3.84	38.68	23.0	23.80	27.20	76.98	0.50	0.000	125.41	0.094	1.036	0	0
			0.16	23.0	3.02	3.27	1.21	0.13			0.12	1.015		
56 +	240.98	125.40	0.20	23.0	2.27	2.27	1.01	0.19						
	39.00	3.58	38.80	23.0	23.38	25.61	60.42	0.64	0.001	125.42	0.131	1.019	0	0
			0.00	23.0	0.00	0.00	0.00	0.00			0.25	1.008		
56 +	282.04	125.41	0.52	23.0	3.37	3.37	1.59	0.32						
	39.00	2.82	38.48	23.0	21.83	23.27	45.80	0.84	0.002	125.44	0.193	1.031	0	0
			0.00	23.0	0.00	0.00	0.00	0.00			0.54	1.013		

ERGEBNISSE													
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STATION	WSPLAGE/H	ABFLUSS	K-WERT	BREITE	UMFANG	FLAECHE	GESCHW	HZV	E-HOEHE	FROUDE	ALPHA	KZW	KZD
ABFLUSS	NN+m/m	m3/s	m^0.33/s	m	m	m2	m/s	m	NN+m	IE o/oo	ALPHAS		
56 +	320.00	125.43	0.18	23.0	1.56	0.63	0.28						
	39.00	3.14	38.82	23.0	23.52	48.85	0.79	0.000	125.46	0.179	1.013	0	0
			0.00	23.0	0.00	0.00	0.00			0.48	1.005		
56 +	361.94	125.45	14.81	23.0	14.80	22.61	0.65						
	39.00	2.77	24.19	23.0	14.09	28.85	0.84	0.000	125.48	0.188	1.043	0	0
			0.00	23.0	0.00	0.00	0.00			0.50	1.014		
56 +	395.62	125.46	11.70	23.0	15.20	20.73	0.56						
	39.00	3.05	27.30	23.0	16.47	34.20	0.80	0.000	125.49	0.183	1.074	0	0
			0.00	23.0	0.00	0.00	0.00			0.45	1.026		
56 +	438.38	125.48	9.19	23.0	20.27	18.32	0.50						
	39.00	3.74	29.81	23.0	14.57	33.54	0.89	0.000	125.52	0.224	1.173	0	0
			0.00	23.0	0.00	0.00	0.00			0.59	1.061		
56 +	491.27	125.52	9.74	23.0	20.59	16.63	0.59						
	39.00	3.25	29.26	23.0	14.77	28.48	1.03	0.001	125.56	0.278	1.174	0	0
			0.00	23.0	0.00	0.00	0.00			0.94	1.061		
56 +	543.32	125.56	7.40	23.0	20.13	15.67	0.47						
	39.00	3.12	31.60	23.0	17.29	35.41	0.89	0.000	125.60	0.236	1.179	0	0
			0.00	23.0	0.00	0.00	0.00			0.64	1.064		
56 +	583.73	125.59	10.75	23.0	14.76	17.49 *	0.61						
	39.00	2.95	28.25	23.0	15.12	30.08	0.94	0.000	125.63	0.225	1.105	0	0
			0.00	23.0	0.00	0.00	0.00			0.65	1.036		
56 +	590.21	125.57 DH	0.00	35.0	0.00	0.00	0.00						
	39.00	2.91	39.00	35.0	17.03	33.23	1.17	0.006	125.64	0.000	1.000	11	0
			0.00	35.0	0.00	0.00	0.00			1.38	1.000		
56 +	599.29	125.58 DH	0.00	35.0	0.00	0.00	0.00						
	39.00	2.78	39.00	35.0	18.07	33.05	1.18	0.000	125.65	0.000	1.000	11	0
			0.00	35.0	0.00	0.00	0.00			1.59	1.000		
56 +	608.50	125.63	13.95	23.0	15.48	19.85 *	0.70						
	39.00	2.71	25.05	23.0	11.51	24.24	1.03	0.000	125.67	0.240	1.103	9	0
			0.00	23.0	0.00	0.37	0.00			0.80	1.035		
56 +	639.18	125.65	0.59	23.0	4.35	1.74	0.34						
	39.00	3.56	38.41	23.0	16.38	37.94	1.01	0.000	125.70	0.228	1.047	0	0
			0.00	23.0	0.00	0.15	0.00			0.73	1.020		

ERGEBNISSE														
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STATION	WSPLAGE/H		ABFLUSS	K-WERT	BREITE	UMFANG	FLAECHE	GESCHW	HZV	E-HOEHE	FRouDE	ALPHA	KZW	KZD
ABFLUSS	NN+m/m		m3/s	m^0.33/s	m	m	m2	m/s	m	NN+m	IE o/oo	ALPHAS		
56 +	676.80	125.67	1.81	23.0	6.42	6.45	3.52	0.51						
	39.00	2.85	37.19	23.0	15.36	16.79	31.70	1.17	0.001	125.74	0.290	1.081	0	0
			0.00	23.0	0.00	0.00	0.00	0.00			1.12	1.032		
56 +	741.00	125.75	1.15	15.0	8.35	8.36	3.85	0.30						
	39.00	3.41	32.66	23.0	13.57	15.45	28.41	1.15	0.000	125.81	0.321	1.553	0	0
			5.19	15.0	19.70	19.89	13.48	0.39			1.11	1.199		
56 +	781.00	125.82	5.46	15.0	27.94	28.01	22.70	0.24						
	39.00	3.45	16.87	23.0	9.24	11.45	24.16	0.70	0.000	125.83	0.185	1.433	0	0
			16.67	25.0	42.19	42.37	38.52	0.43			0.34	1.140		
56 +	835.50	125.83	2.71	15.0	19.49	19.58	13.97	0.19						
	39.00	3.53	15.94	23.0	11.87	14.29	27.57	0.58	0.000	125.85	0.136	1.267	0	0
			20.34	20.0	39.88	40.46	52.62	0.39			0.26	1.090		
56 +	882.75	125.85	5.28	15.0	25.07	25.23	20.40	0.26						
	39.00	3.57	18.67	23.0	11.02	13.90	26.52	0.70	0.000	125.86	0.189	1.412	0	0
			15.05	23.0	40.23	40.26	35.67	0.42			0.40	1.132		
56 +	930.00	125.87	6.52	15.0	30.64	30.86	28.09	0.23						
	39.00	3.65	14.61	23.0	10.17	13.61	25.40	0.58	0.000	125.88	0.149	1.311	0	0
			17.87	25.0	48.72	48.77	45.44	0.39			0.27	1.102		
56 +	951.50	125.87	6.04	15.0	28.42	28.47	26.34	0.23						
	39.00	3.23	16.26	23.0	11.87	14.48	28.18	0.58	0.000	125.88	0.151	1.340	0	0
			16.70	25.0	50.54	50.56	44.91	0.37			0.26	1.110		
56 +	973.00	125.88	6.86	15.0	26.20	26.25	24.54	0.28						
	39.00	3.00	21.13	23.0	13.56	15.93	30.55	0.69	0.000	125.89	0.189	1.416	0	0
			11.01	25.0	34.97	35.00	26.92	0.41			0.38	1.134		
57 +	35.00	125.90	5.64	15.0	26.66	26.69	23.14	0.24						
	39.00	3.21	18.09	23.0	14.03	16.12	29.45	0.61	0.000	125.91	0.172	1.371	0	0
			15.27	25.0	54.03	54.04	41.05	0.37			0.32	1.118		