



### Stoßbeziehungen eines senkrechten Stoßes (Ideales Gas: $\gamma = 7/5 = 1.4$ )

Machzahl  $M_2$ , Druck  $p_2$ , Dichte  $\rho_2$  und Temperatur  $T_2$  hinter einem senkrechten Verdichtungsstoß in Abhängigkeit von den Größen vor dem Stoß  $M_1, p_1, \rho_1$  und  $T_1$ .

$M_1$	$M_2$	$p_2/p_1$	$\rho_2/\rho_1$	$T_2/T_1$	$M_1$	$M_2$	$p_2/p_1$	$\rho_2/\rho_1$	$T_2/T_1$
1,0	1,0	1,0	1,0	1,0	2,00	0,5774	4,5000	2,6667	1,6875
1,02	0,9805	1,0471	1,0334	1,0132	2,02	0,5740	4,5938	2,6962	1,7038
1,04	0,9620	1,0952	1,0671	1,0263	2,04	0,5707	4,6885	2,7255	1,7203
1,06	0,9444	1,1442	1,1009	1,0393	2,06	0,5675	4,7842	2,7545	1,7369
1,08	0,9277	1,1941	1,1349	1,0522	2,08	0,5643	4,8808	2,7833	1,7536
1,10	0,9118	1,2450	1,1691	1,0649	2,10	0,5613	4,9783	2,8119	1,7705
1,12	0,8966	1,2968	1,2034	1,0776	2,12	0,5583	5,0768	2,8402	1,7875
1,14	0,8820	1,3495	1,2378	1,0903	2,14	0,5554	5,1762	2,8683	1,8046
1,16	0,8682	1,4032	1,2723	1,1029	2,16	0,5525	5,2765	2,8962	1,8219
1,18	0,8549	1,4578	1,3069	1,1154	2,18	0,5498	5,3778	2,9238	1,8393
1,20	0,8422	1,5133	1,3416	1,1280	2,20	0,5471	5,4800	2,9512	1,8569
1,22	0,8300	1,5698	1,3764	1,1405	2,22	0,5444	5,5831	2,9784	1,8746
1,24	0,8183	1,6272	1,4112	1,1531	2,24	0,5418	5,6872	3,0053	1,8924
1,26	0,8071	1,6855	1,4460	1,1657	2,26	0,5393	5,7922	3,0319	1,9104
1,28	0,7963	1,7448	1,4808	1,1783	2,28	0,5368	5,8981	3,0584	1,9285
1,30	0,7860	1,8050	1,5157	1,1909	2,30	0,5344	6,0050	3,0845	1,9468
1,32	0,7760	1,8661	1,5505	1,2035	2,32	0,5321	6,1128	3,1105	1,9652
1,34	0,7664	1,9282	1,5854	1,2162	2,34	0,5297	6,2215	3,1362	1,9838
1,36	0,7572	1,9912	1,6202	1,2290	2,36	0,5275	6,3312	3,1617	2,0025
1,38	0,7483	2,0551	1,6549	1,2418	2,38	0,5253	6,4418	3,1869	2,0213
1,40	0,7397	2,1200	1,6897	1,2547	2,40	0,5231	6,5533	3,2119	2,0403
1,42	0,7314	2,1858	1,7243	1,2676	2,42	0,5210	6,6658	3,2367	2,0595
1,44	0,7235	2,2525	1,7589	1,2807	2,44	0,5189	6,7792	3,2612	2,0788
1,46	0,7157	2,3202	1,7934	1,2938	2,46	0,5169	6,8935	3,2855	2,0982
1,48	0,7083	2,3888	1,8278	1,3069	2,48	0,5149	7,0088	3,3095	2,1178
1,50	0,7011	2,4583	1,8621	1,3202	2,50	0,5130	7,1250	3,3333	2,1375
1,52	0,6941	2,5288	1,8963	1,3336	2,52	0,5111	7,2421	3,3569	2,1574
1,54	0,6874	2,6002	1,9303	1,3470	2,54	0,5092	7,3602	3,3803	2,1774
1,56	0,6809	2,6725	1,9643	1,3606	2,56	0,5074	7,4792	3,4034	2,1976
1,58	0,6746	2,7458	1,9981	1,3742	2,58	0,5056	7,5991	3,4263	2,2179
1,60	0,6684	2,8200	2,0317	1,3880	2,60	0,5039	7,7200	3,4490	2,2383
1,62	0,6625	2,8951	2,0653	1,4018	2,62	0,5022	7,8418	3,4714	2,2590
1,64	0,6568	2,9712	2,0986	1,4158	2,64	0,5005	7,9645	3,4937	2,2797
1,66	0,6512	3,0482	2,1318	1,4299	2,66	0,4988	8,0882	3,5157	2,3006
1,68	0,6458	3,1261	2,1649	1,4440	2,68	0,4972	8,2128	3,5374	2,3217
1,70	0,6405	3,2050	2,1977	1,4583	2,70	0,4956	8,3383	3,5590	2,3429
1,72	0,6355	3,2848	2,2304	1,4727	2,72	0,4941	8,4648	3,5803	2,3642
1,74	0,6305	3,3655	2,2629	1,4873	2,74	0,4926	8,5922	3,6015	2,3858
1,76	0,6257	3,4472	2,2952	1,5019	2,76	0,4911	8,7205	3,6224	2,4074
1,78	0,6210	3,5298	2,3273	1,5167	2,78	0,4896	8,8498	3,6431	2,4292
1,80	0,6165	3,6133	2,3592	1,5316	2,80	0,4882	8,9800	3,6636	2,4512
1,82	0,6121	3,6978	2,3909	1,5466	2,82	0,4868	9,1111	3,6838	2,4733
1,84	0,6078	3,7832	2,4224	1,5617	2,84	0,4854	9,2432	3,7039	2,4955
1,86	0,6036	3,8695	2,4537	1,5770	2,86	0,4840	9,3762	3,7238	2,5179
1,88	0,5996	3,9568	2,4848	1,5924	2,88	0,4827	9,5101	3,7434	2,5405
1,90	0,5956	4,0450	2,5157	1,6079	2,90	0,4814	9,6450	3,7629	2,5632
1,92	0,5918	4,1341	2,5463	1,6236	2,92	0,4801	9,7808	3,7821	2,5861
1,94	0,5880	4,2242	2,5767	1,6394	2,94	0,4788	9,9175	3,8012	2,6091
1,96	0,5844	4,3152	2,6069	1,6553	2,96	0,4776	10,0552	3,8200	2,6322
1,98	0,5808	4,4071	2,6369	1,6713	2,98	0,4764	10,1938	3,8387	2,6555
2,00	0,5774	4,5000	2,6667	1,6875	3,00	0,4752	10,3333	3,8571	2,6790

### Stoßbeziehungen eines senkrechten Stoßes (Ideales Gas: $\gamma = 7/5 = 1.4$ )

Machzahl  $M_2$ , Druck  $p_2$ , Dichte  $\rho_2$  und Temperatur  $T_2$  hinter einem senkrechten Verdichtungsstoß in Abhängigkeit von den Größen vor dem Stoß  $M_1$ ,  $p_1$ ,  $\rho_1$  und  $T_1$ .

$M_1$	$M_2$	$p_2/p_1$	$\rho_2/\rho_1$	$T_2/T_1$	$M_1$	$M_2$	$p_2/p_1$	$\rho_2/\rho_1$	$T_2/T_1$
3,00	0,4752	10,3333	3,8571	2,6790	4,00	0,4350	18,5000	4,5714	4,0469
3,02	0,4740	10,4738	3,8754	2,7026	4,02	0,4344	18,6871	4,5823	4,0782
3,04	0,4729	10,6152	3,8935	2,7264	4,04	0,4339	18,8752	4,5930	4,1096
3,06	0,4717	10,7575	3,9114	2,7503	4,06	0,4334	19,0642	4,6036	4,1412
3,08	0,4706	10,9008	3,9291	2,7744	4,08	0,4329	19,2541	4,6141	4,1729
3,10	0,4695	11,0450	3,9466	2,7986	4,10	0,4324	19,4450	4,6245	4,2048
3,12	0,4685	11,1901	3,9639	2,8230	4,12	0,4319	19,6368	4,6348	4,2368
3,14	0,4674	11,3362	3,9811	2,8475	4,14	0,4314	19,8295	4,6450	4,2690
3,16	0,4664	11,4832	3,9981	2,8722	4,16	0,4309	20,0232	4,6550	4,3014
3,18	0,4654	11,6311	4,0149	2,8970	4,18	0,4304	20,2178	4,6650	4,3339
3,20	0,4643	11,7800	4,0315	2,9220	4,20	0,4299	20,4133	4,6749	4,3666
3,22	0,4634	11,9298	4,0479	2,9471	4,22	0,4295	20,6098	4,6847	4,3994
3,24	0,4624	12,0805	4,0642	2,9724	4,24	0,4290	20,8072	4,6944	4,4324
3,26	0,4614	12,2322	4,0803	2,9979	4,26	0,4286	21,0055	4,7040	4,4655
3,28	0,4605	12,3848	4,0963	3,0234	4,28	0,4281	21,2048	4,7135	4,4988
3,30	0,4596	12,5383	4,1120	3,0492	4,30	0,4277	21,4050	4,7229	4,5322
3,32	0,4587	12,6928	4,1276	3,0751	4,32	0,4272	21,6061	4,7322	4,5658
3,34	0,4578	12,8482	4,1431	3,1011	4,34	0,4268	21,8082	4,7414	4,5995
3,36	0,4569	13,0045	4,1583	3,1273	4,36	0,4264	22,0112	4,7505	4,6334
3,38	0,4560	13,1618	4,1734	3,1537	4,38	0,4260	22,2151	4,7595	4,6675
3,40	0,4552	13,3200	4,1884	3,1802	4,40	0,4255	22,4200	4,7685	4,7017
3,42	0,4544	13,4791	4,2032	3,2069	4,42	0,4251	22,6258	4,7773	4,7361
3,44	0,4535	13,6392	4,2179	3,2337	4,44	0,4247	22,8325	4,7861	4,7706
3,46	0,4527	13,8002	4,2323	3,2607	4,46	0,4243	23,0402	4,7948	4,8053
3,48	0,4519	13,9621	4,2467	3,2878	4,48	0,4239	23,2488	4,8034	4,8401
3,50	0,4512	14,1250	4,2609	3,3151	4,50	0,4236	23,4583	4,8119	4,8751
3,52	0,4504	14,2888	4,2749	3,3425	4,52	0,4232	23,6688	4,8203	4,9102
3,54	0,4496	14,4535	4,2888	3,3701	4,54	0,4228	23,8802	4,8287	4,9455
3,56	0,4489	14,6192	4,3026	3,3978	4,56	0,4224	24,0925	4,8369	4,9810
3,58	0,4481	14,7858	4,3162	3,4257	4,58	0,4220	24,3058	4,8451	5,0166
3,60	0,4474	14,9533	4,3296	3,4537	4,60	0,4217	24,5200	4,8532	5,0523
3,62	0,4467	15,1218	4,3429	3,4819	4,62	0,4213	24,7351	4,8612	5,0882
3,64	0,4460	15,2912	4,3561	3,5103	4,64	0,4210	24,9512	4,8692	5,1243
3,66	0,4453	15,4615	4,3692	3,5388	4,66	0,4206	25,1682	4,8771	5,1605
3,68	0,4446	15,6328	4,3821	3,5674	4,68	0,4203	25,3861	4,8849	5,1969
3,70	0,4439	15,8050	4,3949	3,5962	4,70	0,4199	25,6050	4,8926	5,2334
3,72	0,4433	15,9781	4,4075	3,6252	4,72	0,4196	25,8248	4,9002	5,2701
3,74	0,4426	16,1522	4,4200	3,6543	4,74	0,4192	26,0455	4,9078	5,3070
3,76	0,4420	16,3272	4,4324	3,6836	4,76	0,4189	26,2672	4,9153	5,3440
3,78	0,4414	16,5031	4,4447	3,7130	4,78	0,4186	26,4898	4,9227	5,3811
3,80	0,4407	16,6800	4,4568	3,7426	4,80	0,4183	26,7133	4,9301	5,4184
3,82	0,4401	16,8578	4,4688	3,7723	4,82	0,4179	26,9378	4,9374	5,4559
3,84	0,4395	17,0365	4,4807	3,8022	4,84	0,4176	27,1632	4,9446	5,4935
3,86	0,4389	17,2162	4,4924	3,8323	4,86	0,4173	27,3895	4,9518	5,5313
3,88	0,4383	17,3968	4,5041	3,8625	4,88	0,4170	27,6168	4,9589	5,5692
3,90	0,4377	17,5783	4,5156	3,8928	4,90	0,4167	27,8450	4,9659	5,6073
3,92	0,4372	17,7608	4,5270	3,9233	4,92	0,4164	28,0741	4,9728	5,6455
3,94	0,4366	17,9442	4,5383	3,9540	4,94	0,4161	28,3042	4,9797	5,6839
3,96	0,4360	18,1285	4,5494	3,9848	4,96	0,4158	28,5352	4,9865	5,7224
3,98	0,4355	18,3138	4,5605	4,0158	4,98	0,4155	28,7671	4,9933	5,7611
4,00	0,4350	18,5000	4,5714	4,0469	5,00	0,4152	29,0000	5,0000	5,8000