

## Values of the Gas Constant in Different Unit Systems

$V$ unit	$T$ unit	$n$ unit	$R(p/kPa)$	$R(p/atm)$	$R(p/psi)$	$R(p/mm\ Hg)$	$R(p/in\ Hg)$	$R(p/in\ H_2O)$	$R(p/ft\ H_2O)$
ft <sup>3</sup>	K	mol	0.2936228	0.00289784	0.0425864	2.20236	0.0867070	1.17881	0.098235
ft <sup>3</sup>	K	lb·mol	133.1851	1.31443	19.3168	998.973	39.3296	534.704	44.5587
ft <sup>3</sup>	R	mol	0.1631238	0.00160990	0.0236591	1.22353	0.0481706	0.654900	0.054575
ft <sup>3</sup>	R	lb·mol	73.99170	0.730242	10.7316	554.984	21.8498	297.058	24.7548
cm <sup>3</sup>	K	mol	8314.472	82.0574	1205.91	62363.8	2455.27	33380.4	2781.71
cm <sup>3</sup>	K	lb·mol	3771381	37220.6	546993	28287800	1113690	15141100	1261760
cm <sup>3</sup>	R	mol	4619.151	45.5875	669.951	34646.5	1364.03	18544.7	1545.39
cm <sup>3</sup>	R	lb·mol	2095211	20678.1	303885	15715400	618717	8411730	700979
L	K	mol	<b>8.314472</b>	0.0820574	1.20591	62.3638	2.45527	33.3804	2.78171
L	K	lb·mol	3771.381	37.2206	546.993	28287.8	1113.69	15141.1	1261.76
L	R	mol	4.619151	0.0455875	0.669951	34.6465	1.36403	18.5447	1.54539
L	R	lb·mol	2095.211	20.6781	303.885	15715.4	618.717	8411.73	700.979
m <sup>3</sup>	K	mol	0.0083145	0.00008206	0.0012059	0.0623638	0.0024553	0.033380	0.0027817
m <sup>3</sup>	K	lb·mol	3.771381	0.0372206	0.546993	28.2878	1.11369	15.1411	1.26176
m <sup>3</sup>	R	mol	0.0046191	0.00004559	0.0006699	0.0346465	0.001364	0.0185447	0.0015454
m <sup>3</sup>	R	lb·mol	2.095211	0.0206781	0.303885	15.7154	0.618717	8.41173	0.700979