

Target Desired Equivalency Table

The Target Desired Equivalency Table plays an important role in the fuel calculation. This table represents the mixture you are trying to achieve at each load and RPM point. Desired Equivalency numbers are numbers pretty simple to understand. A number of 1 is equivalent to your Stoichiometric set point, a number of 1.2 is 20% richer than your Stoichiometric set point, a number of .9 is 10% leaner than your Stoichiometric set point. We use Desired Equivalency for several reasons:

- Desired Equivalency is a meaningful number no matter what type of fuel you are using. So for example, when you are using flex fuel and your actual ratios of fuel are changing, the Desired Equivalency values are still accurate.
- When monitoring the target Desired Equivalency values, and actual Desired Equivalency results from the O2 Sensor, the number differences are straight percentages. This makes fueling changes simple.
- To convert Desired Equivalency to A/F numbers simply divide your stoich set point number by your Desired Equivalency number. Example: 14.68 divided by 1.22 = 12.032. To convert A/F numbers to Desired Equivalency numbers, divide the stoich set point number by the A/F number you want. Example: 14.86 divided by 12 = 1.22

Air Fuel Ratio Conversion Chart

Gasoline	Desired EQ	Lambda	E85	Ethanol	Methanol
8	1.8350	0.5450	5.3188	4.9046	3.4877
8.25	1.7794	0.5620	5.4850	5.0579	3.5967
8.5	1.7271	0.5790	5.6512	5.2112	3.7057
8.75	1.6777	0.5960	5.8174	5.3644	3.8147
9	1.6311	0.6131	5.9837	5.5177	3.9237
9.25	1.5870	0.6301	6.1499	5.6710	4.0327
9.5	1.5453	0.6471	6.3161	5.8243	4.1417
9.75	1.5056	0.6642	6.4823	5.9775	4.2507
10	1.4680	0.6812	6.6485	6.1308	4.3597
10.25	1.4322	0.6982	6.8147	6.2841	4.4687
10.5	1.3981	0.7153	6.9809	6.4373	4.5777
10.75	1.3656	0.7323	7.1471	6.5906	4.6866
11	1.3345	0.7493	7.3134	6.7439	4.7956
11.25	1.3049	0.7663	7.4796	6.8971	4.9046
11.5	1.2765	0.7834	7.6458	7.0504	5.0136
11.75	1.2494	0.8004	7.8120	7.2037	5.1226
12	1.2233	0.8174	7.9782	7.3569	5.2316
12.25	1.1984	0.8345	8.1444	7.5102	5.3406
12.5	1.1744	0.8515	8.3106	7.6635	5.4496
12.75	1.1514	0.8685	8.4768	7.8168	5.5586
13	1.1292	0.8856	8.6431	7.9700	5.6676
13.25	1.1079	0.9026	8.8093	8.1233	5.7766
13.5	1.0874	0.9196	8.9755	8.2766	5.8856
13.75	1.0676	0.9366	9.1417	8.4298	5.9946
14	1.0486	0.9537	9.3079	8.5831	6.1035
14.25	1.0302	0.9707	9.4741	8.7364	6.2125
14.5	1.0124	0.9877	9.6403	8.8896	6.3215
14.75	0.9953	1.0048	9.8065	9.0429	6.4305
15	0.9787	1.0218	9.9728	9.1962	6.5395
15.25	0.9626	1.0388	10.1390	9.3495	6.6485
15.5	0.9471	1.0559	10.3052	9.5027	6.7575
15.75	0.9321	1.0729	10.4714	9.6560	6.8665
16	0.9175	1.0899	10.6376	9.8093	6.9755
16.25	0.9034	1.1069	10.8038	9.9625	7.0845
16.5	0.8897	1.1240	10.9700	10.1158	7.1935
16.75	0.8764	1.1410	11.1362	10.2691	7.3025
17	0.8635	1.1580	11.3025	10.4223	7.4114
17.25	0.8510	1.1751	11.4687	10.5756	7.5204
17.5	0.8389	1.1921	11.6349	10.7289	7.6294
17.75	0.8270	1.2091	11.8011	10.8822	7.7384
18	0.8156	1.2262	11.9673	11.0354	7.8474