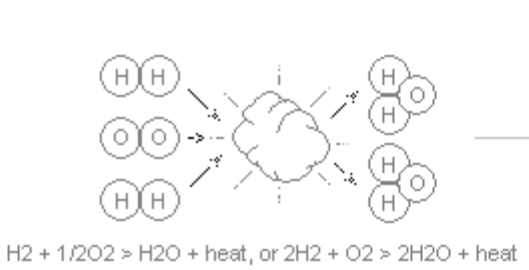
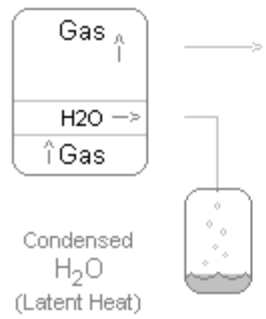
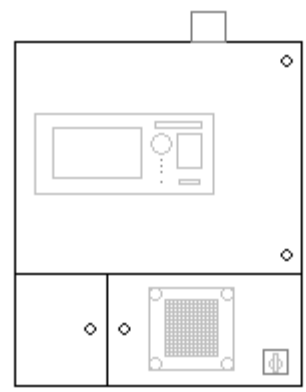
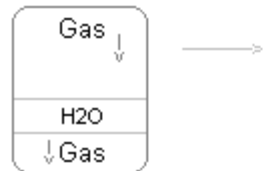


Combustion of Hydrocarbon Fuels:
When two hydrogen atoms burn one molecule of water is formed



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Note:
Water Vapor Is Formed From Combustion Of Hydrocarbon Fuel - Combustion Of Carbon - (Carbon Monoxide) Produces No Water Vapor So The LHV And HHV Are The Same

Note:
Higher Heating Values Will Read Higher Than Lower Heating Values Because The Higher Heating Value Includes The Additional Heat From The 'Latent Heat of Water Vapor' Condensed From The Combustion Of Hydrocarbon Fuel Gas - Lower Heating Values Do Not Include The Additional 'Latent Heat' Because The Flue Gas Water Vapor Remains Above Its Dew Point When Exiting The Combustion Process At 300°F

| | | |
|--|-----|------|
| Typical Gas BTU/Scf (at 60°F & 30" Hg) | | |
| Fuel: | LHV | HHV |
| Nat Gas | 913 | 1015 |
| Coke G. | 442 | 500 |
| B.F Gas | 88 | 90 |

| | |
|---|-----------------------|
| DELTA INSTRUMENT LLC Northvale, NJ 07647. | |
| Job: | Rev: 0 |
| Lower vs Higher Heating Values | |
| Tech Talk Series | Date: 02/01/08 |