



## AIR TECHNIQUES

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*Design and Manufacture of  
Custom and Standard Test  
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Aerosol Correction Factors		
DOP Substitute liquid	Generator Pressure Factors	Internal Reference Factors
DOP (DEHP)	1.00	1.00
PAO (Emery 3004)	1.15	0.73
DOS (DEHS)	1.22	0.96
Mineral Oil	1.10	0.90
Ondina Oil (Ondina EL)	1.34	0.79
Kaydol	1.18	0.92
Polyethylene Glycol (PEG 400)	1.33	1.11
Paraffin Oil	1.21	0.89
Corn Oil	1.17	0.88

The above values are for use when substitute liquids are used in-place of the liquid specified for the Factory equipment calibration and setup.

The generator pressure factors are used as multipliers for the applied pressure to a Type III-A Laskin nozzle generator.

### Example:

- DOP-20 psi applied with dilution airflow of 135 cfm yields 100 mg/m<sup>3</sup>
- PAO-23 psi (20 psi x 1.15 correction factor) applied with dilution airflow of 135 cfm yields 100 mg/m<sup>3</sup>

Internal reference factors are multipliers for the reference setting required for a 100% reading. There are two examples that follow, one for analog and one for digital photometers.

**Note:** Digital photometers apply the correction factor to the 100% reference value used for DOP.

### Example 1: Analog series - TDA-2D, TDA-2E

- DOP-10.0% setting required for 100% response to 100 mg/m<sup>3</sup>
- PAO-7.3% setting (10.0% x 0.73 correction factor) required for 100% response to 100 mg/m<sup>3</sup>

### Example 2: Digital series - TDA-2G

- DOP with P1 selected - 100 required for 100% response to 100 mg/m<sup>3</sup>
- DOS with P3 selected - 0.96 (0.96 X 100 DOP value) required for a 100% response to 100 mg/m<sup>3</sup>

**Note:** The above correction factors apply only to air operated generators. If a thermal type generator, TDA-5A or TDA-5B, is being used the upstream concentration must be sampled to obtain a 100% setting.