



PRESSURE GAUGES AND STORED PRESSURE EXTINGUISHERS PRESSURE/TEMPERATURE RELATIONSHIP

Each year during the cold weather months we experience a rash of complaints about “leakers.” Usually it turns out that the extinguishers have been subjected to abnormally cold temperatures in transit.

Most, if not all, extinguishers are filled and pressurized at 68-70 degrees F. Pressure gauges are calibrated to show the normal CHARGED pressure at this temperature. The GREEN area of any pressure gauge is intended to show a CHARGED condition for the extinguisher through the temperature range for which the extinguisher is rated (i.e., -40 degrees through +120 degrees F.) An extinguisher that has been subjected to temperature ranges between -40 degrees and +70 degrees F will register between the left edge of the GREEN pie and the upright CHARGED position. Conversely, extinguishers exposed to abnormally high temperatures will indicate a reading higher than (to the right of) the upright position.

If manufacturers were to purposely overpressurize the extinguishers to account for anticipated low temperatures during transit into colder climates, warm weather would bring complaints of overcharged extinguishers.

The pressure/temperature relationship is noticeably greater in halon (vaporizing liquid) extinguishers than in dry chemical units because halon itself expands and contracts in relationship to temperature. It is for this reason that the GREEN pie area on halon gauges is larger than on dry chemical (or water) gauges.

WHEN IN DOUBT: Condition the extinguisher to 70 degrees F (21 degrees C) for several hours to obtain an accurate indication.



Water Mist Extinguisher Pressure Gauge



Halon Extinguisher Pressure Gauge

A few additional pressure gauge items should be noted:

- ▶ Always use the proper replacement gauge. All gauges used by Amerex on new extinguishers or sold as replacement parts are marked as follows: DRY CHEMICAL (also used for Class D Dry Powder), WATER or HALON.
- ▶ Avoid using a pressure gauge with a stem of dissimilar metal to the extinguisher valve body. Use “epoxy coated” brass stem gauges on aluminum bodies and either “coated” or “uncoated” brass stem gauges on brass, chrome plated valves.
- ▶ Always use a stainless steel or oil filled bourdon tube type gauge on WATER, and LS/AF. This will prevent bourdon tube corrosion, which could cause a leak or possibly make the extinguisher inoperable.
- ▶ To avoid potential damage to the gauge bourdon tube, never set your pressure regulator to more than 25 psi above the extinguisher operating pressure.

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