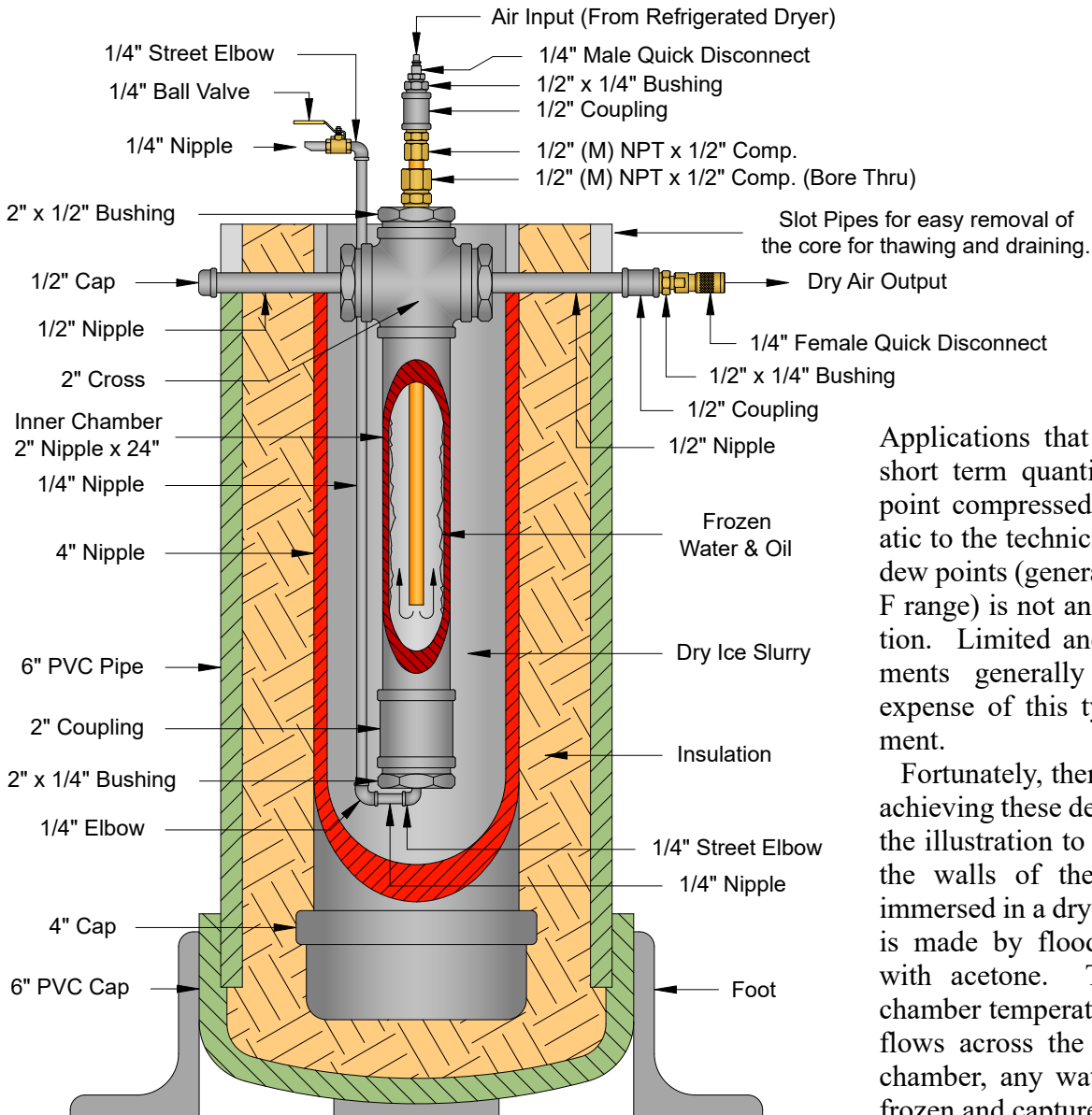


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## Ultra Low Dew Point Cryogenic Trap

by Brian S. Elliott



Applications that require a limited or short term quantity of ultra low dew point compressed air can be problematic to the technician. To achieve these dew points (generally in the  $-40^{\circ}$  to  $-80^{\circ}$  F range) is not an inexpensive proposition. Limited and short term requirements generally cannot justify the expense of this type of drying equipment.

Fortunately, there is a DIY method of achieving these dew points, as shown in the illustration to the left. In this case, the walls of the inner chamber are immersed in a dry ice slurry. The slurry is made by flooding crushed dry ice with acetone. This will produce a chamber temperature of  $-109^{\circ}$  F. As air flows across the inner surface of the chamber, any water vapor is instantly frozen and captured onto the walls.

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