



# TECHNICAL BULLETIN #TB8029-07

## Electrical Bonding & Grounding

March 2, 2007

This bulletin details the current requirements for direct Bonding & Grounding of DIAMONDBACK™ CSST. This bulletin replaces Technical Bulletin TB7979-06 and Section 4.10 of the 2006 DIAMONDBACK™ Design and Installation Instruction Manual. This bulletin shall take effect immediately for all DIAMONDBACK™ installations.

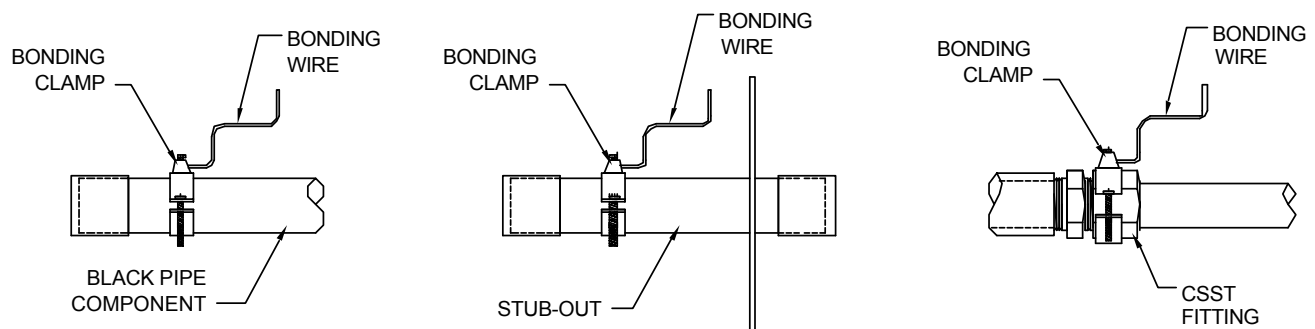
Direct bonding of DIAMONDBACK™ CSST is required for all gas piping systems incorporating DIAMONDBACK™ CSST whether or not the connected gas equipment is electrically powered. This requirement is provided as part of the manufacturer's instruction for single-family and multi-family buildings. Bonding for commercial applications should be designed by engineers knowledgeable in electrical system design and the local electrical code.

DIAMONDBACK™ CSST installed inside or attached to a building or structure shall be electrically continuous and direct bonded to an effective ground-fault current path. The gas piping system shall be considered to be direct bonded when installed in accordance with the following:

- The piping is permanently and directly connected to the electrical service equipment enclosure, the grounded conductor at the electrical service, the grounding electrode conductor (where of sufficient size) or to one or more of the grounding electrodes used.
- A single bond shall be made at or near the service entrance of the structure or the gas meter of each individual housing unit within a multi-family structure.
- The bonding conductor shall be 6 AWG copper wire.
- Bonding jumpers shall be attached in an approved manner in accordance with NEC-2005 Article 250.70 and attachment bonding point for the bonding jumper shall be accessible.
- This bond is in addition to any other bonding requirements as specified by local codes.

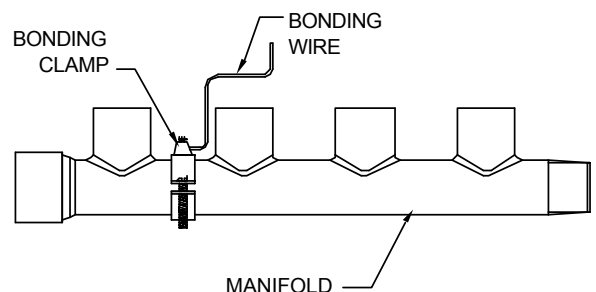
DIAMONDBACK™ DBC series bonding clamps or equivalent UL 467 listed bonding clamps are recommended.

For attachment to the DIAMONDBACK™ gas piping system, a single bonding clamp must be attached to either a DIAMONDBACK™ brass fitting, a steel manifold, or to any rigid pipe component. The bonding clamp and wire are to be installed by a qualified electrician. **No location along the corrugated stainless steel tubing portion of the gas piping system shall be used as the bonding attachment point under any circumstances.**



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| <b>DBC100 Bonding Clamp</b> | - Can be attached to DIAMONDBACK™ 375DMF & 500DMF CSST fittings and 500DSM & 750DSM CSST manifolds |
| <b>DBC200 Bonding Clamp</b> | - Can be attached to DIAMONDBACK™ 750DMF, 1000DMF & 1250DMF CSST fittings                          |

**\*\*Bonding clamps for rigid pipe must be of the appropriate size and type\*\***



**Note: The DIAMONDBACK™ Flexible Gas Piping or other gas system components shall not be used as a grounding electrode or as the grounding path for appliances or electrical systems.**

As with all DIAMONDBACK™ guidelines, the techniques outlined within this bulletin are subject to all local fuel gas and building codes.