



Manufacturer of flexible metal hose and gas piping products

DoubleTrac UL / ASME / NFPA / CFC / MSS/ ICC Compliance DoubleTrac Fuel and Chemical Compatibility

## **UL Listings:**

- UL971A- Metallic Underground Piping for Flammable Liquids
- CAN/ULC -S679- Metallic and Nonmetallic Underground Piping for Flammable and Combustible Liquids
- ANSI/CAN/UL/ULC 1369-Standard for Aboveground Piping for Flammable and Combustible Liquids with Optional Marina Rating and 2-hour fire rating

#### **ASME B31.1:**

- DoubleTrac is in compliance with ASME B31.1 specifically:
- ASME B31.1, specifies approved materials, Table 126.1 Lists ASTM A240 as an approved material. DoubleTrac primary pipe is manufactured from stainless steel per ASTM A240 which puts it in compliance.

### **ASME B31.3:**

- DoubleTrac is in compliance with ASME B31.3 specifically:
- ASME B31.3, specifies approved materials, Appendix A, Specification Index, lists ASTM A240
  as an approved material. DoubleTrac primary pipe is manufactured from stainless steel per
  ASTM A240 which puts it in compliance.

## **ASME B31.4:**

- DoubleTrac is in compliance with ASME B31.4 specifically:
- ASME B31.4, specifies approved materials, Table 423-1-1, lists ASTM A240 as an approved material. DoubleTrac primary pipe is manufactured from stainless steel per ASTM A240 which puts it in compliance.

# ASME B31.9:

- DoubleTrac is in compliance with ASME B31.9 specifically:
- ASME B31.4, specifies approved materials, in Mandatory Appendix I, and listed materials in ASME B31.1. ASME B31.1, specifies approved materials, Table 126.1 Lists ASTM A240 as an approved material. DoubleTrac primary pipe is manufactured from stainless steel per ASTM A240 which puts it in compliance.

### NPFA 30 Section 27:

DoubleTrac is in compliance with NFPA 30 specifically:

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- NFPA 30 Section 27.4.7.1 Metallic/Nonmetallic Composite Piping which states:
   Underground metallic/nonmetallic composite piping systems shall be listed in accordance with
   UL 971A, Metallic Underground Fuel Pipe for Flammable Liquids.
- NFPA 30 Section 27.4.7.2 Metallic/Nonmetallic Composite Piping which states:
   Aboveground metallic/nonmetallic composite piping systems shall be listed in accordance with UL/ULC 1369, Aboveground Piping for Flammable and Combustible Liquids

## NFPA 37 Chapter 6.8:

- DoubleTrac is in compliance with NFPA 37 Chapter 6.8 specifically, 6.8.1 specifies compliance to NFPA 30 which has been addressed above.
- Additionally, NFPA 37 6.8.1 specifies that piping must be steel; DoubleTrac pipe is stainless steel, per ASTM A240.

## 2010 CFC Section 3403.6 Piping Systems:

- DoubleTrac is in compliance with 2010 CFC3403.6
- Specifically, 3403.6.2 which states Piping system components shall be designed and fabricated in accordance with table 3403.6.2 {ASME B31.1, ASME B31.3, ASME B31.4, ASME B31.9}, and Chapter 27 of NFPA 30; compliance to each of those is listed above.
- 3403.6.10 Pipe Joints DoubleTrac fittings on the primary pipe are a mechanical metal to metal seal, not reliant on the plastic portion to maintain a seal. The primary pipe to fitting joint does not utilize any O- rings or gaskets and will not leak during a fire.
- 3403.6.2.1 Clauses 1 through 3 are addressed by the design/installation.

### 2013 CFC Section 5703.6 Piping Systems:

- DoubleTrac is in compliance with 2013 CFC5703.6
- Specifically, 5703.6.2 states piping must be in accordance with the standards listed in Table 5703.6.2 {ASME B31.1, ASME B31.3, ASME B31.4, and ASME B31.9}, and Chapter 27 of NFPA 30; compliance to each of those is listed above.
- 5703.6.10 Pipe Joints DoubleTrac fittings on the primary pipe are a mechanical metal to metal seal, not reliant on the plastic portion to maintain a seal. The primary pipe to fitting joint does not utilize any O- rings or gaskets and will not leak during a fire.
- 5703.6.2.1 Clauses 1 through 3 are addressed by the design/installation.

#### MSS SP-69:

• This has now been incorporated in MSS SP-58. Although this is not specifically a design requirement for DoubleTrac; the recommendation is that the installers utilize hanger Type 11 or Type 12 to facilitate mounting and securing DoubleTrac to the appropriate structure. These clamp types are readily available from a number of suppliers.

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#### ICC-ES AC156:

• Seismically Qualified per ICC-ES AC156 Testing Protocol

Fuels and Chemicals\* Approved for Use with DoubleTrac:

- Motor Vehicle (MV) Fuels
- High Blend (HB) Fuels
- Concentrated (CT) Aviation and Marine (A&M) Fuels
- B100
- DEF
- Ammonia Hydroxide
- Acetone
- Anhydrous Ammonia
- E85
- Heptane
- Hexanol
- Isopropyl Alcohol
- Propylene Glycol
- Toluene
- Turpentine

<sup>\*</sup>All Chemical MSDS Sheets must be provided to OmegaFlex for verification and approval before use in DoubleTrac Piping