



## Propane System Installation Guide

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### 1. Types of Propane Containers

#### DOT Portable Cylinders:

DOT portable cylinders are those types of containers usually sized for 100 pound propane capacity and less and manufactured to the specifications of the U.S. Dept. of Transportation. These cylinders are not filled on site at the customers home but at a propane distribution plant and then transported and installed at the customers home. When the cylinder is empty it is returned to the propane plant for inspection and refilling.

#### DOT Stationary Cylinders:

DOT stationary cylinders are those types of containers usually sized from 200 to 420 pounds propane capacity and manufactured to the specifications of the U.S. Dept. of Transportation. These cylinders are filled on site at the customers home from a bulk delivery truck. These cylinders must be inspected and refilled at the customers home.

#### ASME Aboveground Tanks:

ASME aboveground tanks are usually sized 120 to 1,000 gallon water capacity, and manufactured to the specifications of the American Society of Mechanical Engineers. These tanks are considered stationary tanks and are installed aboveground on masonry foundations or blocks and filled on site at the customers home from a bulk delivery truck.

#### ASME Underground Tanks:

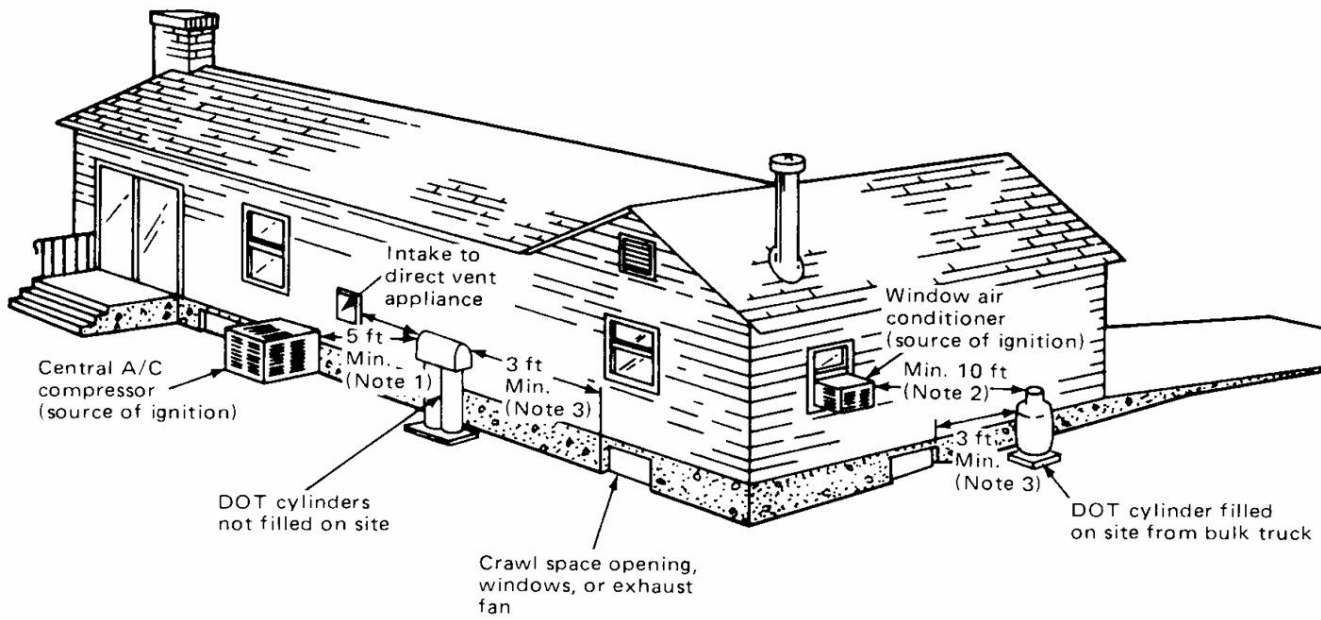
ASME underground tanks are usually sized 500 or 1,000 gallon water capacity and manufactured to the specifications of the American Society of Mechanical Engineers. These tanks are considered stationary tanks and are installed underground and filled on site at the customers home from a bulk delivery truck.

### 2. Separation Requirements for Propane Containers

The following figures are provided for informational reference purposes only. The figures are copies of those printed in "The LP-Gas Code", NFPA 58, 2004 edition, Annex I. **Actual requirements for the spacing of propane containers will be specified and approved by the federal, state and local codes and regulations and the local Authority Having Jurisdiction for the location where the propane container is to be installed and/or utilized.**

Annex I contains Figures I.1 (a) through (c), which illustrate the separation distance required for the installation of LP-Gas containers up to 2000 gallons. The figures incorporate the distances required in Section 6.3 and Table 6.3.1 of the code. Because Table 6.3.1 is the most used item in the code, the need for clarity and unambiguous implementation of the table is of great importance. Figures I.1 (a) through (c) make it much easier for all users to properly apply Section 6.3 and Table 6.3.1.

## Cylinder - Spacing



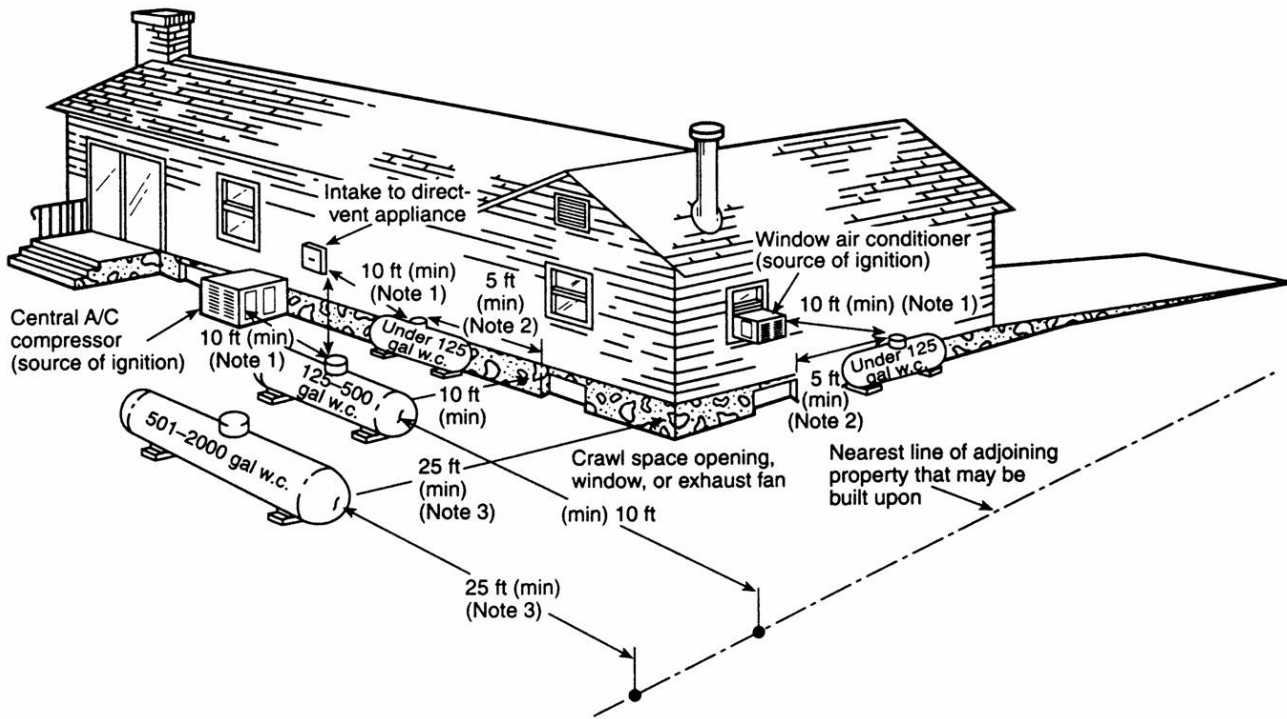
### Notes:

- 1: 5 Ft minimum from relief valve in any direction away from any exterior source of ignition, openings into direct-vent appliances, or mechanical ventilation air intakes. Refer to 6.3.7.
- 2: If the cylinder is filled on site from a bulk truck, the filling connection and vent valve must be at least 10 ft from any exterior source of ignition, openings into direct-vent appliances, or mechanical ventilation air intakes.
- 3: Refer to 6.3.7.

### NFPA 58, 2004 Edition, Annex I, Figure I.1(a) Cylinders

(This figure for illustrative purposes only; local approved codes, regulations and the Authority Having Jurisdiction shall govern)

## Aboveground ASME Tanks - Spacing



**Notes:**

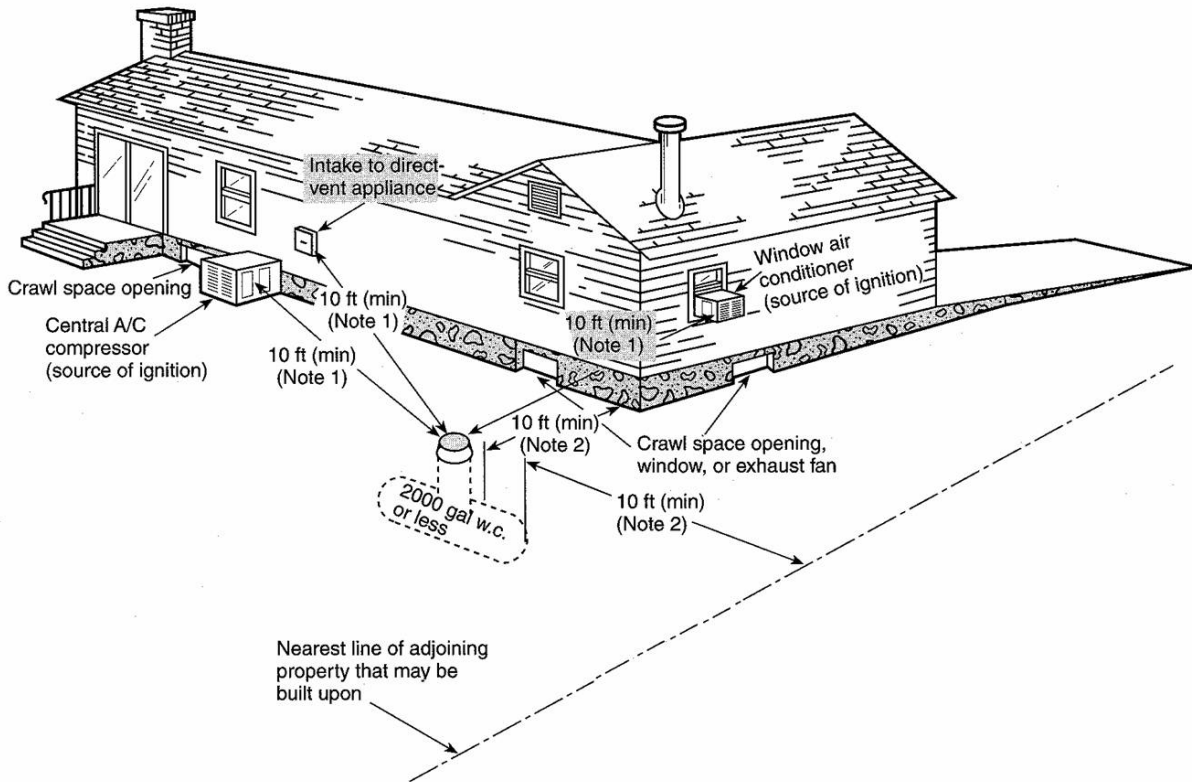
- 1: Regardless of its size, any ASME container filled on site must be located so that the filling connection and fixed maximum liquid level gauge are at least 10 ft from any external source of ignition (e.g., open flame, window A/C, compressor), intake to direct-vented gas appliances, or intake to a mechanical ventilation system. Refer to 6.3.9.
- 2: Refer to 6.3.9.
- 3: This distance may be reduced to no less than 10 ft for a single container of 1200 gallon water capacity or less, provided such container is at least 25 ft from any other LP-Gas container of more than 125 gallons water capacity. Refer to 6.3.3.

### NFPA 58, 2004 Edition, Annex I, Figure I.1(b) Aboveground ASME Containers

**(This figure for illustrative purposes only; local approved codes, regulations and the Authority Having Jurisdiction shall govern)**



## Underground ASME Tanks - Spacing



**Notes:**

- 1: The relief valve, filling connection, and liquid fixed maximum level gauge vent connection at the container must be at least 10 ft from any exterior source of ignition, openings into direct-vent appliances, or mechanical ventilation air intakes. Refer to 6.3.4.
- 2: No part of an underground container shall be less than 10 ft from an important building or line of adjoining property that can be built upon. Refer to 6.3.4.

### NFPA 58, 2004 Edition, Annex I, Figure I.1(c) Underground ASME Containers

**(This figure for illustrative purposes only; local approved codes, regulations and the Authority Having Jurisdiction shall govern)**



# Tank Installation Worksheet

## A. CUSTOMER INFORMATION

1. Name: \_\_\_\_\_
2. Address: \_\_\_\_\_  
\_\_\_\_\_
3. City: \_\_\_\_\_ Zip \_\_\_\_\_
4. Type of Installation: \_\_\_\_\_
5. Work Order No. \_\_\_\_\_

## B. TANK INFORMATION

1. Tank: UG \_\_\_ AG \_\_\_ Quantity \_\_\_\_\_
2. Water Capacity: \_\_\_\_\_
3. Serial No: \_\_\_\_\_

## C. LOCATION

1. Distance to Important Bldg: \_\_\_\_\_
2. Distance to Property Line: \_\_\_\_\_
3. Distance to Sources of Ignition: \_\_\_\_\_
4. Distance to Stored Combustibles: \_\_\_\_\_
5. Distance to Flammable Liquids: \_\_\_\_\_

## D. SPECIAL CONSIDERATIONS

1. Septic Tank: \_\_\_\_\_
2. Underground Utilities: \_\_\_\_\_  
\_\_\_\_\_
3. Drainage: \_\_\_\_\_
4. Security Fence: \_\_\_\_\_
5. Soft Ground: \_\_\_\_\_
6. Access to Tank: \_\_\_\_\_

## E. SPECIAL NOTES

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## SKETCH OF CUSTOMER SITE



# Propane Consumer Profile

Customer Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_ City \_\_\_\_\_ Zip \_\_\_\_\_

Installation Address: \_\_\_\_\_ City \_\_\_\_\_ Zip \_\_\_\_\_

Home Phone: \_\_\_\_\_ Work Phone: \_\_\_\_\_ Cell: \_\_\_\_\_

Owner Name: \_\_\_\_\_

Address: \_\_\_\_\_ City \_\_\_\_\_ Zip \_\_\_\_\_

Home Phone: \_\_\_\_\_ Work Phone: \_\_\_\_\_ Cell: \_\_\_\_\_

Contractor/Builder Name: \_\_\_\_\_

Address: \_\_\_\_\_ City \_\_\_\_\_ Zip \_\_\_\_\_

Home Phone: \_\_\_\_\_ Work Phone: \_\_\_\_\_ Cell: \_\_\_\_\_

### Residential Installation:

- 1) Will indoor gas appliances be used year-round? Yes \_\_\_\_\_ No \_\_\_\_\_
- 2) Will outdoor gas appliances be used year-round? Yes \_\_\_\_\_ No \_\_\_\_\_
- 3) Does customer entertain large groups during cold weather? Yes \_\_\_\_\_ No \_\_\_\_\_
- 4) Is Propane container accessible by all-weather and adequate access  
Roads capable of handling bobtail trucks? Yes \_\_\_\_\_ No \_\_\_\_\_
- 5) Does customer want propane container concealed?  
Landscaping \_\_\_\_\_ Underground \_\_\_\_\_ Screening \_\_\_\_\_  
Yes \_\_\_\_\_ No \_\_\_\_\_
- 6) Is location altitude in excess of 2,000 feet above sea level? Yes \_\_\_\_\_ No \_\_\_\_\_
- 7) Is location access limited by steep grades and/or periodic snow  
and ice or other severe circumstances? Yes \_\_\_\_\_ No \_\_\_\_\_
- 8) If critical service factors apply, mark Yes and describe them: Yes \_\_\_\_\_ No \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

- Load Profile: \_\_\_\_\_ Moderate Seasonal Load  
 \_\_\_\_\_ High Load Demand in Severe Weather  
 \_\_\_\_\_ High Altitude  
 \_\_\_\_\_ Container Access Limited in Severe Weather  
 \_\_\_\_\_ Critical Service Factors Apply

Profile Completed By: \_\_\_\_\_

Date: \_\_\_\_\_



## Residential Customer Gas Appliance Listing

Check all that apply & fill in the Appliance Nameplate Ratings in **MAXIMUM BTU INPUTS**:

<b>Indoor Gas Appliances</b>		<b>Outdoor Gas Appliances</b>	
	MAX BTUH/CFH		MAX BTUH/CFH
___ Furnace # 1	_____	___ Pool Heater #1	_____
___ Furnace # 2	_____	___ Spa Heater	_____
___ Furnace # 3	_____	___ BBQ Grill #1	_____
___ Boiler # 1	_____	___ BBQ Grill #2	_____
___ Fireplace # 1	_____	___ Infrared Heater #1	_____
___ Fireplace # 2	_____	___ Infrared Heater #2	_____
___ Fireplace # 3	_____	___ Infrared Heater #3	_____
___ Water Heater #1	_____	___ Fireplace #1	_____
___ Water Heater #2	_____	___ Fireplace #2	_____
___ Water Heater #3	_____	___ Fireplace #3	_____
___ Clothes Dryer #1	_____	___ Gaslight #1	_____
___ Range/Oven	_____	___ Gaslight #2	_____
___ Cook Top	_____	___ Gaslight #3	_____
___ Other	_____	___ Generator	_____

**Total Maximum Indoor Load:** \_\_\_\_\_ **Total Maximum Outdoor Load:** \_\_\_\_\_

**Total Maximum Distribution System Load: ( Indoor + Outdoor Loads) =** \_\_\_\_\_

**Total Effective Container Load:**  
**Effective Load Factor:** \_\_\_ X **Max Total System Load =** \_\_\_\_\_

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