



CNG Field Service Bulletin
Agility Systems Installation Requirements:
Proximity to Exhaust and Heat Sources

ENP-370
Rev. C: July 20, 2018

1. Introduction

This document is intended as a guideline with respect to installation of CNG containers (cylinders) and fuel system components near exhaust and heat sources.

Fuel system installers must be aware of heat shields and must not modify or remove them.

A heat shield is defined as a durable metal shield, typically fabricated from aluminum or stainless steel.

Additional information on proper routing, clipping and installation is available in Agility Fuel Solutions publication ENP-524, "CNG and LNG Fuel System Routing, Clipping and Installation Guide."

Warning Message Used in this Bulletin



Damage to equipment, fuel system or vehicle is possible if instructions are not followed.

2. Affected Units

Information in this bulletin applies to all Agility Fuel Solutions systems.

3. Corrective Action

Does not apply. This is an informational bulletin.



Fuel system installers must be aware of heat shields and must not modify or remove them.

4. Heat Shields

A heat shield is defined as a durable metal shield, typically fabricated from aluminum or stainless steel. Agility uses three types of heat shielding.

4.1 Attached to CNG System

A sheet metal heat shield may be bolted directly to the CNG system, for example, part numbers 25769399 and 25769340, see Figure 1.

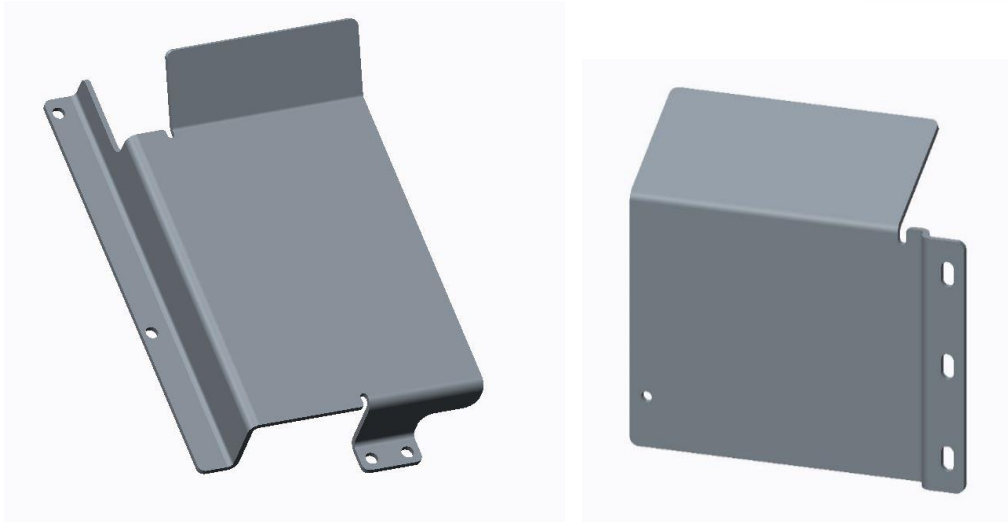


Figure 1. Heat shields that bolt to the CNG system. Left: 25769399, right: 25769340.

4.2 Attached to Exhaust

A perforated stainless steel heat shield may be purchased at any aftermarket dealer. Standard sizes are available and mounting clamps are also available. Agility designs and fabricates a sheet metal heat shield that can bolt to the exhaust.

4.3 Attached to Chassis

Agility designs and fabricates a sheet metal heat shield that can bolt to the chassis. For example, part number 20103342 shown in Figure 2.

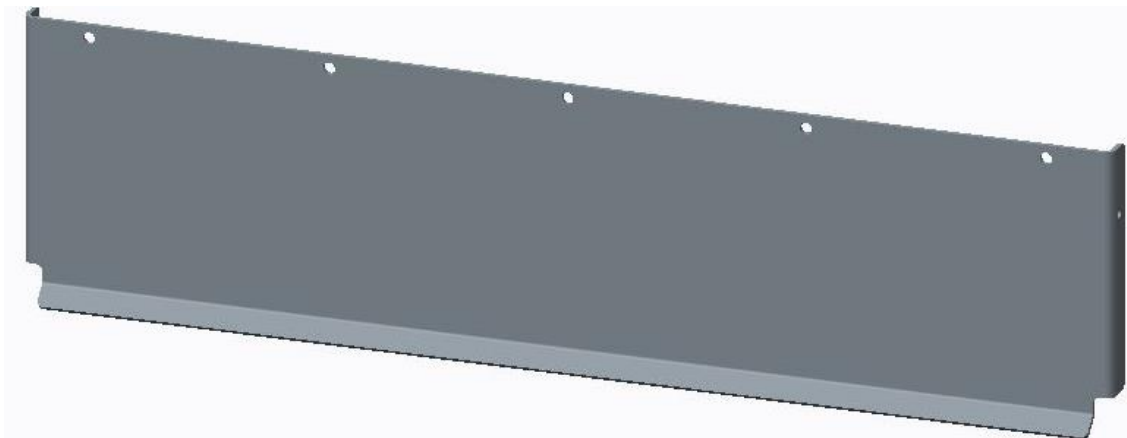


Figure 2. Heat shield part number 20103342 bolts to the vehicle chassis.

5. Fire Sleeve

Fire sleeve is **not** considered a heat shield. CNG hose rated at 180°F is still rated at 180°F when wrapped with fire sleeve: the heat rating is not increased by using fire sleeve.

Fire sleeve contains a flame retardant that prevents the sleeve from igniting and burning when exposed to direct flame.

Fuel lines shall be shielded using additional means when located in close proximity to the exhaust.

6. Agility Systems Requirements

The following are Agility minimum requirements and are intended as a guideline. Additional heat shields and precautions may be taken to exceed these requirements.

1. Minimum 2.0 inch gap between exhaust and an all-metal fuel line:
 - a. No heat shield required.
2. Minimum 2.0 inch gap between exhaust and non-metallic fuel line:
 - a. Metal heat shield required.
 - b. Fire sleeve recommended around non-metallic fuel lines in addition to heat shield.
3. Minimum 2.0 to 3.5 inch gap between exhaust and fuel system covers:
 - a. Requires heat shield between exhaust and system covers.
4. Minimum 3.5 to 8.0 inch gap between exhaust and fuel system covers:
 - a. No heat shield required.

In some cases, heat sources may be near CNG fuel system covers. The maximum allowable (steady-state) temperature of a composite cover is 150°F. The maximum allowable (steady-state) temperature of a metal cover is 180°F.

1. Minimum 4.0 to less than 8.0 inch gap between exhaust piping and fuel system covers when exhaust piping is below the fuel system covers:
 - a. Requires heat shield between exhaust and system covers.
2. Minimum 8.0 inch gap between exhaust piping and fuel system covers when exhaust piping is below the fuel system covers:
 - a. No heat shield required between exhaust and system covers.
3. Exhaust outlet below fuel system covers must divert exhaust gases away from fuel system such that no exhaust gases impinge on the fuel system.

Contact Agility Fuel Solutions Customer Care Group if local heating of the covers exceeds these limits.

9. Warranty Information

Does not apply.

If you have any questions, contact Agility Fuel Solutions Customer Care: +1 949 267 7745, toll free: +1 855 500 2445 or support@agilityfs.com.

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Agility Fuel Solutions

3335 Susan Street Suite 100

Costa Mesa, CA 92626 USA

www.agilityfuelsolutions.com