

# Holley® HydraMat™

## **How to choose a Holley HydraMat for your application:**

1. The general rule of thumb is to install the largest HydraMat you can reasonably fit inside your tank. Larger sizes offer more fuel capacity in the internal reservoir and less restriction for the fuel pump. They also cover more square inches in the tank for maximum fuel scavenging, ensuring the mat is touching fuel even in extreme driving conditions.
  - A. HydraMats are most commonly used flat on the bottom of the tank, but they can be folded (for instance, up the back wall of a fuel cell in a rock crawler buggy) to optimize fuel scavenging on vertical climbs.
  - B. HydraMats should not be cut or trimmed. This will void the warranty and render the product useless. They cannot be resealed without professional equipment.
  - C. Multiple HydraMats can be used in a single tank by installing a “T” or “Y” fitting in the feed line to the fuel pump. The self-sealing design will pull fuel from the tank area that still has available fuel.
  - D. In tanks with fuel cell foam, the HydraMat will be installed under the fuel cell foam.

## **Frequently Asked Questions:**

### **Do I need to run a pre-filter before my fuel pump?**

No, all HydraMats are constructed with a 15 micron depth media so no pre-filtration is required for the fuel pumps.

### **What is the life expectancy of the HydraMat assembly?**

The HydraMat filtration performance will provide 5-10 years or more depending on the fuel type, how clean your fuel system is, how much you drive your car, and how aggressively the car is used. Severe duty applications should inspect the filter at regular intervals to ensure the Hydramat is not restricted by debris. The Hydramat is not cleanable.

### **Where should I direct my return fuel?**

The return fuel should be plumbed in the tank so the discharge point is directed towards the pickup connection point and approximately 1” above the HydraMat surface. This will keep the HydraMat wet under extremely low fuel conditions and provide maximum scavenging.

### **Can I install a Hydramat in 2-tank applications with a common external fuel pump?**

Select the largest HydraMat size that can fit through the tank opening. Position an 8AN or 10AN “Y” adapter between the 2 tanks to provide the shortest, equal lengths from the tank flanges.

### **Can the HydraMat be folded, bent, or crumpled up to get it installed in the tank?**

Yes, the HydraMat is a woven nylon media with nylon support structure. It can resist reasonable folding, bending or moderate crumpling to compress it into a state that will fit through the tank opening.

### **What are the Click Bond fasteners for and when should I use them?**

The click bond fasteners are specially designed stud mounts that can be installed in custom tanks or fuel cells with large openings. These studs are epoxied into the tank to secure the HydraMat and prevent unwanted movement.

Kit number 16-201 is intended for steel or aluminum fuel tanks.

Kit number 16-202 is intended for polypropylene or polyethylene fuel tanks.

Position the HydraMat on the floor of the fuel tank in the preferred location. Mark the tank surface through the mounting holes in the HydraMat for the position of each stud. Follow the directions provided in the Click Bond kit for cleaning and adhesive application. Allow 24 hours to dry. Unscrew the plastic frame and slide the HydraMat over each stud. Open the kit bag and install the washer. Tighten the nut to 7-10 IN. LBS.

### **What are the magnets for and when should I use them?**

The magnets are designed to be bolted to the various HydraMats to prevent unwanted movement of the mat inside of steel fuel tanks or fuel cells. These magnets are very strong and will hold the mat firmly in place. The magnets (or studs) should be used to keep the HydraMat mounted securely to the floor of the tank. If the mat is allowed to float or move, its effectiveness could be reduced.

#### **INSTALLATION:**

Install the selected magnet studs through the HydraMat holes, as needed. Off-road applications may benefit from the larger magnets to hold the HydraMat in position.

The larger 16-204 magnet kit is recommended for:

- 16-100
- 16-106
- 16-107
- 16-109
- 16-110

The smaller 16-203 magnet kit is recommended for:

- 16-101
- 16-102
- 16-103
- 16-104
- 16-105
- 16-108

Assemble the washer on the stud and torque the nuts as follows:

- 16-203 kit (4-40 thread) 4-5 IN. LBS.
- 16-204 kit (6-32 thread) 7-10 IN. LBS.

Apply a Duct-type adhesive tape around the tank opening on sharp edges to prevent damage to the media if:

- The opening is smaller than the width of the HydraMat in its free state or
- The folded/rolled HydraMat must be additionally pressed through the opening

Insert the HydraMat through the tank opening and position on the tank floor. The magnets can be pushed across the tank floor with a wooden dowel or plastic tool to make the HydraMat lie as flat as possible in the desired position for the suction hose alignment. **Be careful not to allow any portion of the HydraMat or suction hose to block or bind the motion of the fuel level sender float.**

### **Can the magnet kits be used for polypropylene or polyethylene fuel tanks?**

Yes, by using kit number 16-205, you can hold the HydraMat in place by sandwiching the tank between two magnets.

### **INSTALLATION:**

Position the HydraMat as described above. Locate the disk magnets from kit number 16-205 on the outside of the tank surfaces opposite the internal magnets on the HydraMat (sandwiching the tank between two magnets). Position the magnets to make the HydraMat as flat as possible on the tank floor.

### **Note for attachment of fuel pump suction hose:**

Holley recommends the use of a convoluted PTFE hose or a rubber hose designed for in-tank fuel use. Holley offers a 2 ft. 3/8" in-tank compatible hose (P/N 26-161). This hose can be attached to the HydraMat before or after insertion into the fuel tank, depending upon the tank opening size. The torque requirements for all adapters to the HydraMat are as follows:

- 3/8" NPT requires 20-24 FT. LBS.
- 1/2" NPT requires 25-30 FT. LBS.

**CAUTION: Do not use PTFE pipe tape or sealant paste! Loose particles will be drawn into the fuel pump and it will fail!**

### **Can the HydraMat be cleaned?**

The large majority of the debris is imbedded inside the depth media and cannot be removed. Surface cleaning is not practical or effective and should NOT be done. In extreme conditions (Racing or Off Road) check your HydraMat annually.

### **Fuel tank opening matrix:**

The following HydraMats will conform to pass through these tank opening sizes:

<b>Part #</b>	<b>Description</b>	<b>Leg Width</b>	<b>Acceptable Tank Opening</b>
16-100	15 x 15 cross-center outlet – 3/8" NPT	2.5"	3.15" & larger
16-101	15 x 8 cross-center outlet – 3/8" NPT	2.5"	3.15" & larger
16-102	15 x 8 cross-offset outlet – 3/8" NPT	2.5"	3.15" & larger
16-103	8 x 8 cross-center outlet – 3/8" NPT	2"	3.15" & larger
16-104	11 x 11 cross-center outlet – 3/8" NPT	2.5"	3.15" & larger
16-105	15 x 3 rectangle – center outlet – 3/8" NPT	N/A	2.07" & larger
16-106	11 x 11 square – center outlet – 1/2" NPT	N/A	4.00" & larger
16-107	15 x 15 square – center outlet – 1/2" NPT	N/A	4.00" & larger
16-108	8 x 3 rectangle – center outlet – 3/8" NPT	N/A	2.07" & larger
16-109	24 x 15 rectangle – center-side-side outlet – 1/2" NPT	N/A	4" x 6" & larger
16-110	30 x 14 rectangle – center-side-side outlet – 10 AN	N/A	6" x 10" & larger
12-924	30 x 14 rectangle – side outlet – 10AN	N/A	6" x 10" & larger
12-925	30 x 14 rectangle – center-side outlet – 10 AN	N/A	6" x 10" & larger