MOBILE
SPRAY FOAM RIGS

Choosing Your Profoam Mobile Spray Rig

PROFOAM™

Profoam Offers Spray Rigs for Every Application

Profoam offers a complete line of mobile spray rigs for plural component applications such as:

- SPF (Spray Polyurethane Foam) insulation
- SPF roofing
- Concrete lifting
- Polyurea coatings and other

All Profoam rigs are custom designed and built to ensure we meet the needs of our customers. One size does not fit all with plural component equipment and spray rigs. Our knowledgeable staff can consult with you and recommend the right mobile spray rig to fit your specific application need.

PROFOAM™

Common Spray Rig Types

- Bumper pull trailers (One, Two and Three Compartment)
- Gooseneck trailers (Two Compartment)
- Box trucks (One or Two Compartment)
- Sprinter Vans
- Mobile Carts

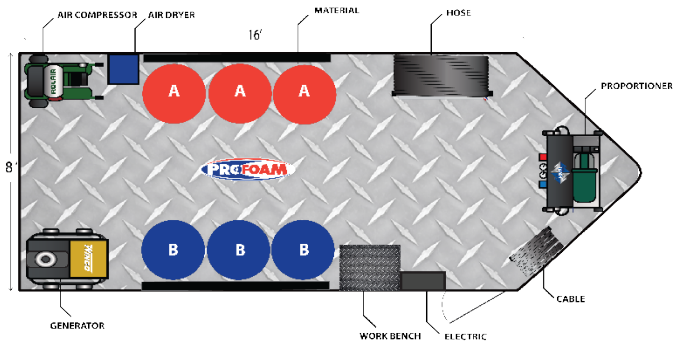
Step 1: Choosing The Spray Rig Size

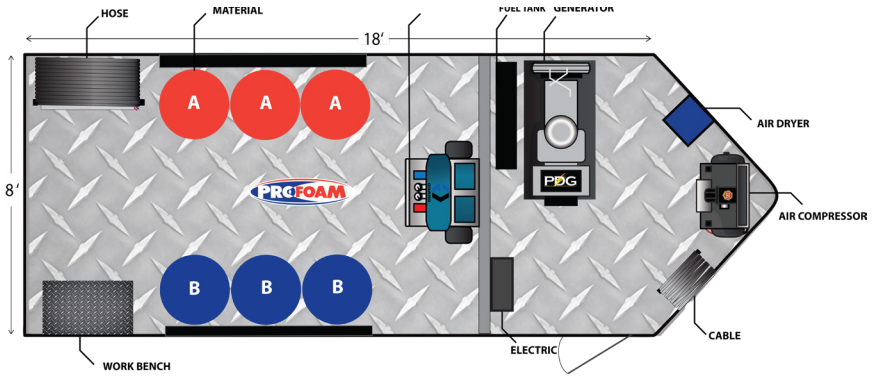
Mobile spray rigs for the SPF insulation industry are generally configured in bumper-pull trailers, gooseneck trailers or commercial box trucks.

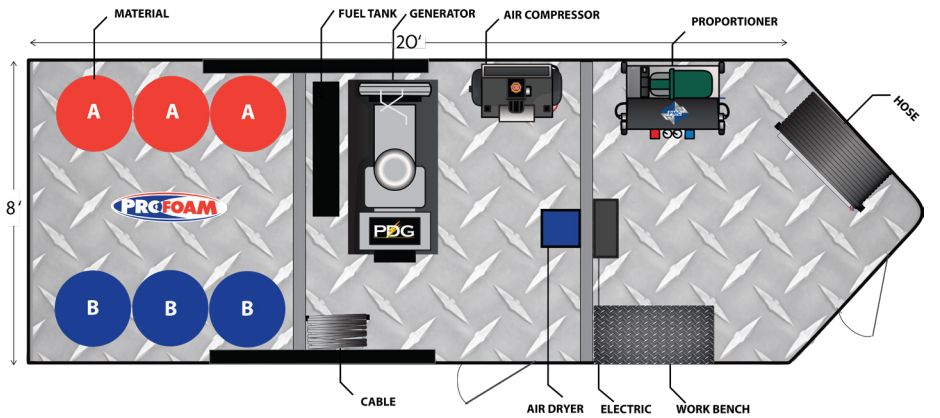
The type of application typically determines the size of spray rig chosen. For example, commercial insulation or roofing projects are generally larger than residential insulation projects and therefore require a larger trailer or box truck for additional material storage. It is common to spray 3 or more sets of foam per day in these types of applications.

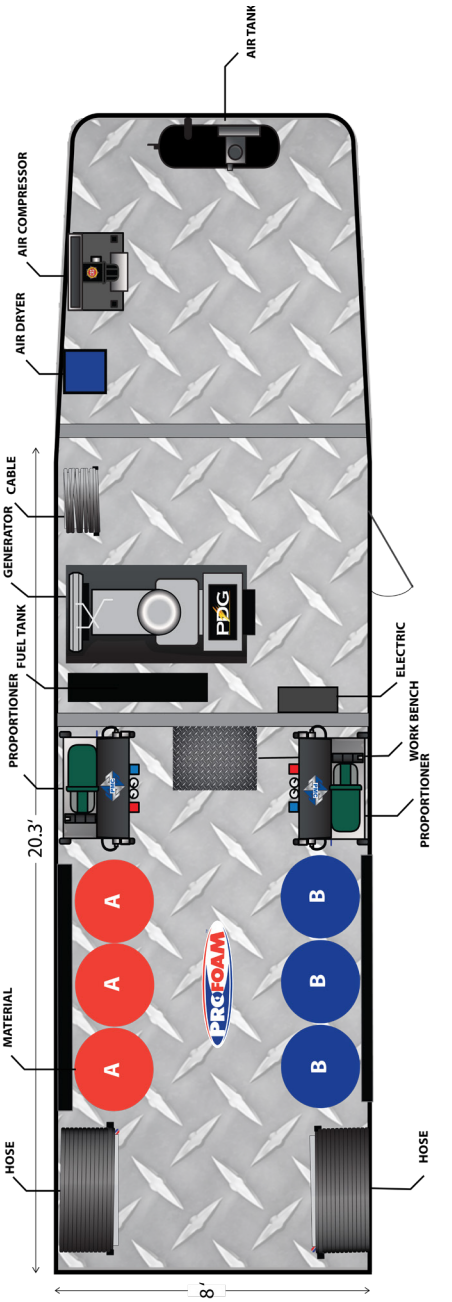
SPARTAN

Sprayfoam insulation projects normally require less than 3 sets of foam materials to be stored inside of the mobile spray rig. It is uncommon to spray more than 2 sets of product in a single day due to tighter workspaces and less trigger time while maneuvering from room to room or through attics and crawlspaces.









Step 2: Choosing The Spray Rig Power Source

Shore Power Rig:

Profoam mobile spray rigs can be powered by a heavy-duty electrical cable with lengths up to 250' and sized according to the required power consumption of electrical components in the rig. This configuration is referred to as a "shore power" system and requires the least amount of vehicle space thus allowing for use of smaller units. The shore power cable is connected to the job site power source through a 100 Amp @ 240 Volt double pole breaker.

Single-phase units have the flexibility to add a transfer switch and shore power cable allowing you to operate either the equipment off the generator or the job site power supply. Three phase mobile spray rigs allow for smaller generator units and are considered better for the electric motors over a long period of time.

Diesel generator units require significantly more floor space than gas or shore powered units. The average diesel powered spray rig is 18-20' in length.

Diesel Powered Generator:

Profoam mobile spray rigs can also be powered by generators making them completely "self contained." The ultimate mobile spray rig design would feature a diesel engine generator for long term dependable power supply.

Diesel powered generators sized between 21-60 kW, are permanently mounted inside of the spray rig and can be operated in single or three-phase power.

PDG
POWERHOUSE DIESEL GENERATORS

PROFOAM™

Gas Powered Generator:

Some sprayfoam proportioners draw low enough amperage to enable a gasoline engine generator to power them. These generators typically deliver between 18-22 Kilowatts (kW) of power and can be configured on rolling chassis or industrial slides.

WINCO®

The rolling chassis units are secured to the trailer for travel which can be unharnessed and rolled off of the mobile spray rig for operation on the job site. The industrial slide units are configured to slide out of the side of the mobile spray rig while staying permanently attached to the vehicle. This allows the gas powered engine to get maximum airflow while in use, exhaust fumes to be outside of the workspace and reduced noise for the interior of the spray rig

Gas generator powered spray rigs require slightly more floor space than shore powered rigs and therefore a larger spray rig is typically required. The average gas generator powered spray rig is 16-18' in length.

Step 3: Choosing The Proper Size Air Compressor

Profoam rigs come standard with industrial grade rotary screw air compressors for our electric compressor units. Rotary screw compressors are built to last and outperform conventional reciprocating air compressors due to their 100% duty cycle and simplistic design. The larger the compressor, the more CFM of air it will produce. All SPF rigs require compressed air to drive the material transfer pumps and spray gun. 15 CFM of air can run these two components sufficiently. However, when adding additional pneumatic components, your sprayfoam rig will require additional CFM of air. For example:

➢ Pneumatic Proportioners:

Air driven proportioners rely on compressed air to drive the proportioning pumps and can require up to 35 CFM of air for the machine alone.

➢ Drum Mixers:

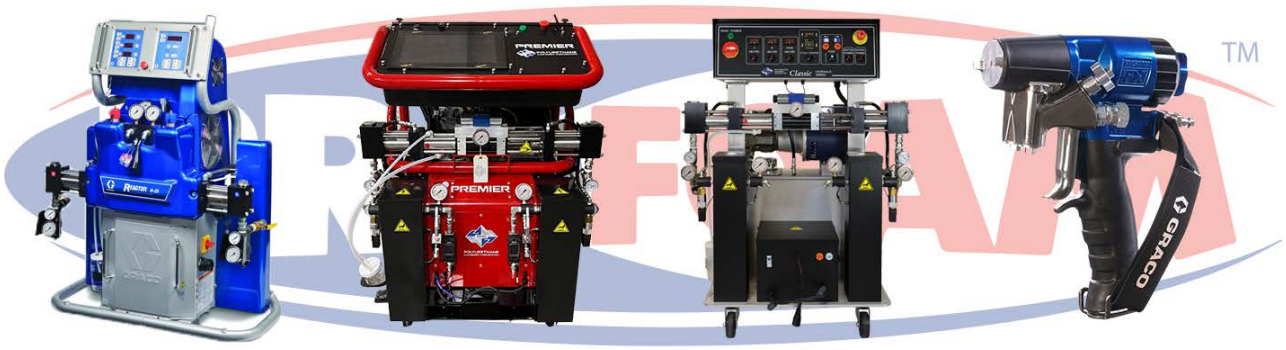
Pneumatic drum mixers require up to 10 CFM of air to operate properly.

➢ High Pressure Fresh Air System:

Some customers may choose to upgrade their fresh air respirator to a High Pressure System. These systems require up to 15 CFM of air to operate

Your Profoam sales professional will be able to guide you in choosing the proper size air compressor for your mobile spray unit.

All Profoam Rigs come standard with a High Temperature Refrigerated Air Dryer



Step 4: Choosing The Right Proportioning Equipment

Profoam offers SPF and coating equipment from the two largest and best SPF equipment manufacturers (PMC and Graco) to help ensure our customers get the best value for their money. We will never force feed one specific product to our customers but rather act as a consultant to make sure our customers have all of the information needed to make an informed decision.

Both of these SPF equipment manufacturers make excellent products with great warranties. The choice comes down to application needs such as machine output, machine pressure, heating capability and hose length.

Machine Output:

The smallest machines used in mobile spray rig applications produce around 20 lbs/min output of material. This is plenty of output for residential and light commercial applications.

Most spray guns for residential and light commercial applications are set up with mixing chambers that have material outputs in the 10-12 lbs/min range. It is difficult to control the installation of SPF in stud wall cavities once you exceed this volume.

Precision is important to achieve a consistent foam thickness, minimize waste and create a professional looking finished product. Mid-size machines have an output of around 30 lbs/min and are capable of installing residential or commercial insulation applications as well as small roofing applications. This size machine allows for larger mixing chambers in the gun for faster application of product in larger structures.

Our largest machines are capable of producing outputs between 40-55 lbs/min, which will enable you to spray any type of structure efficiently. These machines are ideal for large roofing applications, trench breaker applications, and other large volume projects. Keep in mind, even the largest machines we offer are capable of spraying small residential jobs as they can be governed by a smaller material mixing chamber and spray tip.

The actual output of the product is determined by the size of the mixing chamber in the gun at the time of application and not by the overall output of the machine itself.

Machine Pressure:

Low-pressure proportioners are rated for spray pressures up to 2,000 psi, which is more than adequate for SPF insulation and roofing applications. Profoam materials are typically processed between 1,000 – 1,300 psi. High-pressure proportioners are rated for spray pressures up to 3,500 psi, which is sometimes required for plural component coatings such as polyurea. Contractors may choose to purchase a high-pressure machine that will give them the ability to spray both foam insulation and polyurea coatings.

Heating Capability:

SPF materials are generally processed between 120-140 degree temperatures at the gun. Drum storage temperatures between

60-80 degrees F are crucial to proper processing of SPF materials. At the machine, the primary heaters will preheat the material to the desired set temperature.

From there, the hose heater will help maintain the desired temperature all of the way to the spray gun. When choosing the type and size of heaters for your proportioning equipment, the product type and local climate are the two most important factors. Winter time applications in cold climates require greater heat capability to maintain a proper material temperature at the spray gun.

There are several heater sizes to chooe from on our equipment and the equipment price generally increases along with the size of heaters chosen. The size of the heater will also directly impact the amount of electrical power required to run the equipment. The larger the heater, the more power required.

Hose Length Capabilities:

Profoam mobile spray rigs are offered with hose lengths up to 410’. Our standard insulation rigs come with an average of 210’ of heated hose while our standard roofing rigs come with an average of 310’ of heated hose. Hoses come in 50’ sections and we always add a 10’ whip hose at the end of the hose length.

The whip hose is intentionally shorter because it takes the most abuse and will wear out the fastest. When it comes time to replace it, you’ll save hundreds of dollars over replacing a 50’ section of hose. The desired hose length will be a determining factor on the machine choice because each machine has a maximum hose length restriction. For example, a Graco E-20 is limited to a maximum hose length of 210’, a Graco E-30 is limited to a maximum hose length of 310’ and most PMC machines will run up to 410’ of spray hose with a 120 Volt hose heat transformer.

Proportioner Pumps Drive System

Plural component equipment is offered primarily in three different material pump drive options; pneumatic, electric, and hydraulic.

Air Driven Machines:

Pneumatic proportioners have two separate material pumps that are driven by one air motor simultaneously. They are capable of spraying any two component material system we offer. An advantage to pneumatic machines is lower electrical requirements, which enables the use of a smaller, less expensive generator power source. Pneumatic proportioners are a good choice for turn-key, self-contained mobile spray rigs when lower budgets are required.

Electric Driven Machines:

Electric driven machines have two independent material pumps and are generally used in residential and light commercial applications. 20-30 lbs/min are typical output capabilities. Because these machines have electric heaters and pump motors, they require more power than other types of proportioners thus requiring larger generators.

Hydraulic Driven Machines:

Hydraulic driven machines have independent horizontal hydraulic pumps that are electrically driven. These machines deliver consistent spray pressure and require little maintenance. The heaters and control panel are still electric but generally require less power than comparably sized total electric machines.

GRACO

Step 5: Choosing The Correct Spray Foam Application Gun

Air Purge Guns:

Air purge spray guns are the most popular choice for SPF contractors. They are referred to as “air purge” because a steady stream of air flows through the mixing chamber and spray tip once the trigger is released to purge any residual material from the inside passages in the gun. Both Graco and PMC make great air purge spray guns and Profoam offers training, service and spare parts to support both products.

Mechanical Purge Guns:

Mechanical purge spray/pour guns are the best choice for concrete lifting and fan spray stud bay applications. The valving rod/mixing module design is better suited for these types of applications and Profoam offers

Step 6: Choosing The Correct Material Transfer Pumps

Material transfer pumps, also known as drum pumps or stick pumps, are used to transfer SPF material from the bottom of the 55 gallon drum to the foam proportioner. These pumps are typically pneumatic driven and come in 1:1, 2:1 and 3:1 ratios. We typically set these up to deliver 200 psi of fluid pressure to the proportioner.

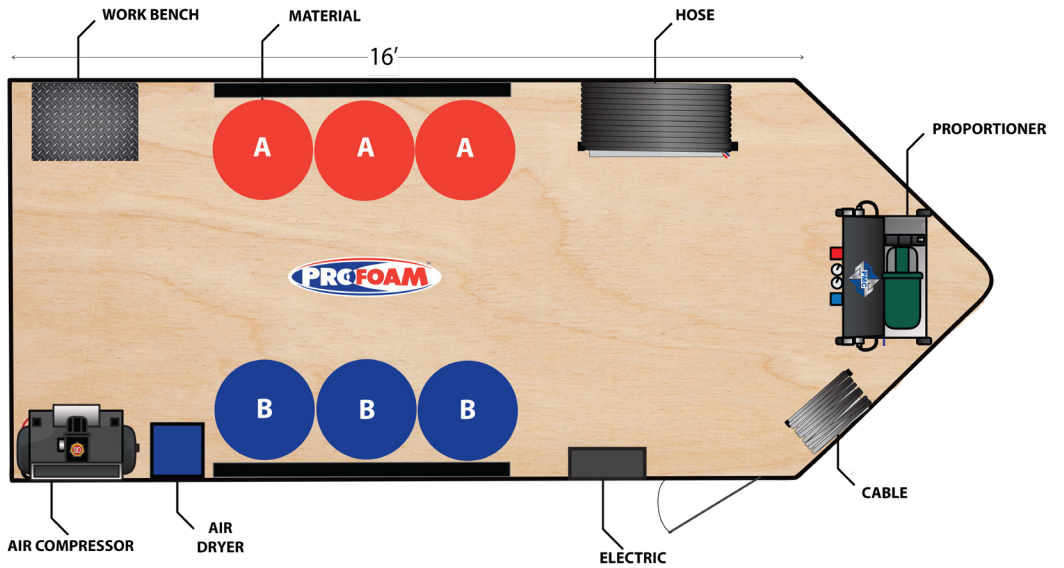
Step 7: Choosing The Profoam Mobile Spray Rig Model

Profoam mobile spray rigs are offered in two different models, our standard Pro-Series and our new Economy (Eco) Series. Our Pro-Series rigs feature multiple upgrades throughout that are very beneficial to our customers. These special features have become standard on our mobile spray rigs over the years due to their performance based impact for our customers. Our Eco-Series come with the same great equipment packages as the Pro-Series rigs. The Eco-Series rigs are simply built with cost saving elements to help customers enter into the SPF industry for a smaller upfront investment. Here are a few of the differences:

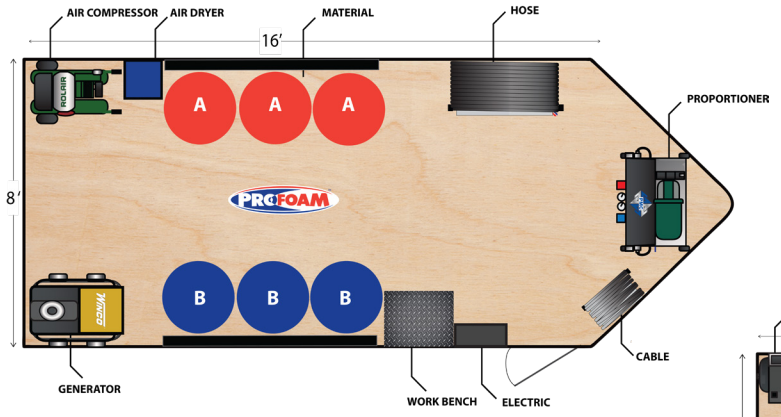
Profoam Eco-Series Mobile Spray Rigs Feature:

- Eco-Series Rigs come with a 3,500-lb Trailer Jack Standard Instead of an Electric/Hydraulic Jack
- Eco-Series Rigs come with Steel Wheels instead of Aluminum Radial Star Mag Wheels
- Eco-Series Rigs come Standard with 160' of Spray Hose Instead of 210'
- Eco-Series Trailers do not come Standard with 24" ATP Rock Guard on all exterior Surfaces
- Eco-Series Rigs do not come Standard with Rubber ATP Fully Adhered Flooring
- Eco-Series Rigs do not come Standard with Insulation
- Eco-Series Rigs do not come Standard with Plywood Ceilings
- Eco-Series Rigs do not come Standard with Painted Walls

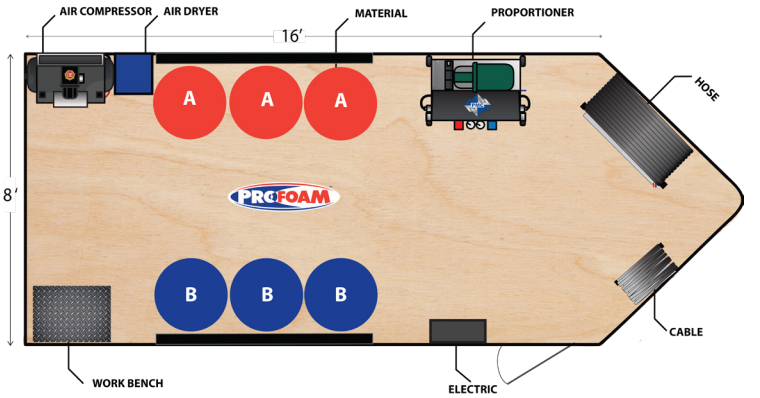
16' Eco-Series PMC PF-1600 Shore Powered Spray Rig



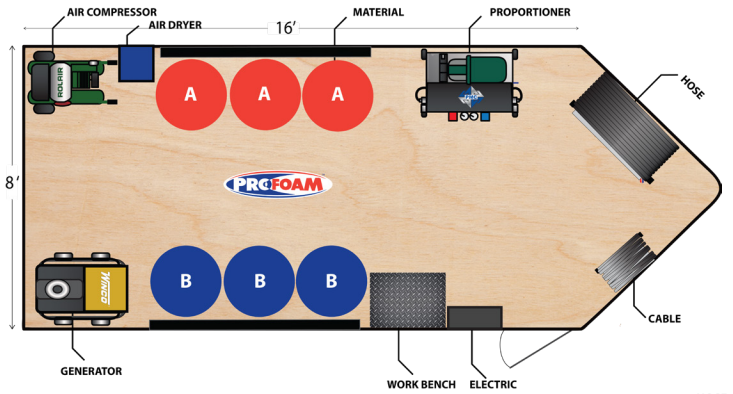
16’ Eco-Series PMC PF-1600 Gas Generator Powered Spray Rig



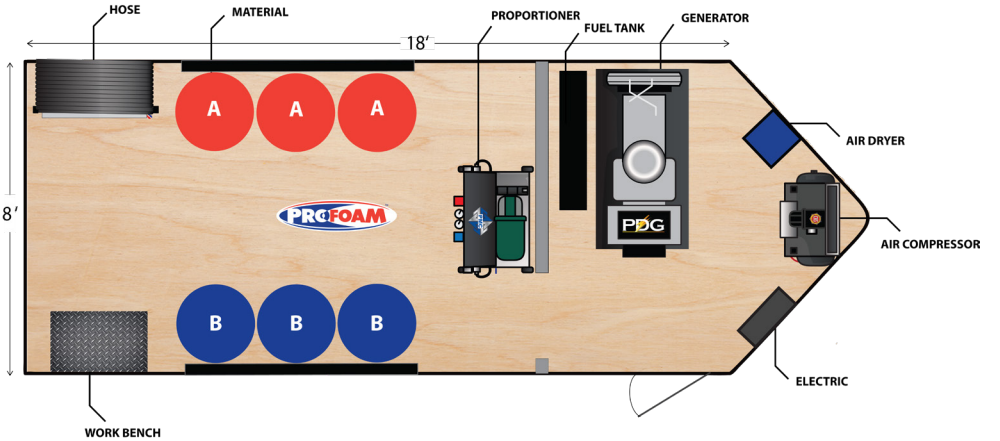
16’ Eco-Series PMC PH-2 Shore Powered Spray Rig



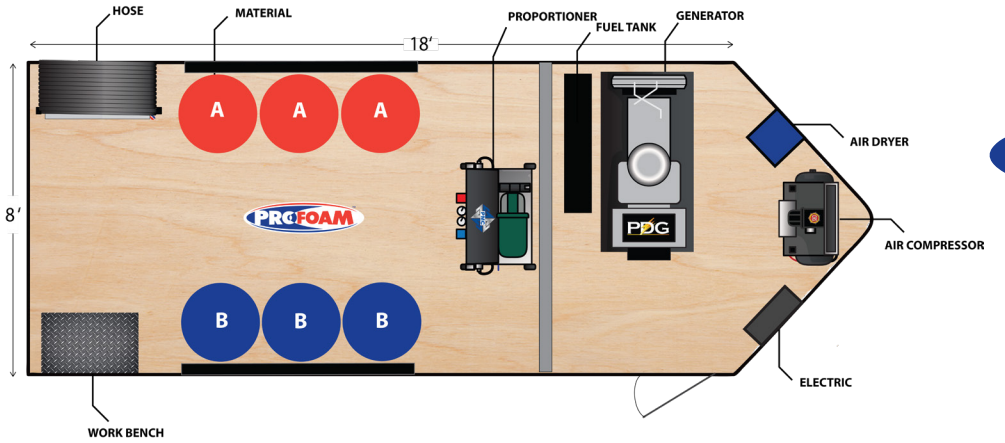
16’ Eco-Series PMC PH-2 Gas Generator Powered Spray Rig



18’ Eco-Series PMC PH-2 - 21kW Diesel Generator Powered Spray Rig (With Interior Door)



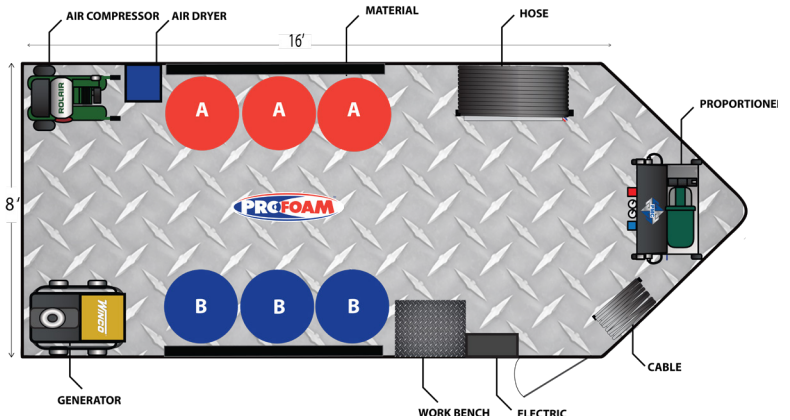
18’ Eco-Series PMC PH-2 - 21kW Diesel Generator Powered Spray Rig (Without Interior Door)



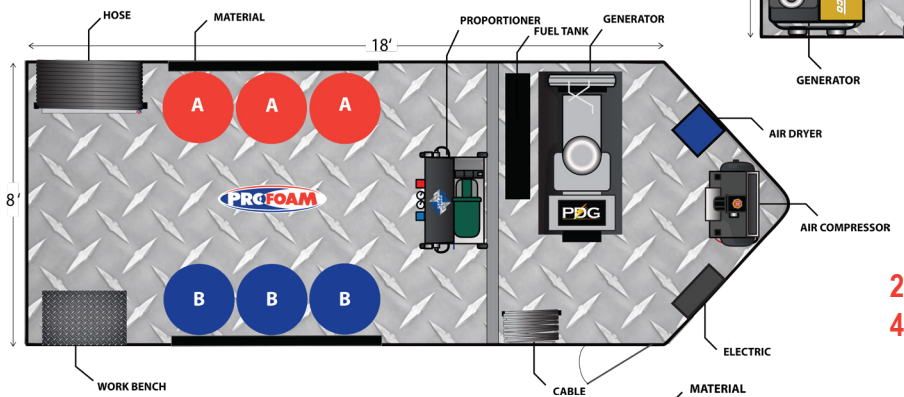
Profoam Pro-Series Mobile Spray Rigs Feature:

- 12” OC Floor Supports – Standard
- 24” ATP Rock Guard Surround – Standard
- 16” Radial Star Mag Wheels and Tires – Standard
- 8,000-lb Heavy-Duty Hydraulic Electric Jack – Standard
- Fully Adhered Rubber ATP Flooring - Standard
- 1-¾” Closed Cell Foam Insulation Envelope – Standard
- ¾” Cabinet Grade Painted Plywood Walls – Standard
- Pour Off and Recirculation System – Standard
- Rotary Screw Compressor - Standard
- High Temperature Refrigerated Air Dryer – Standard
- 110 Volt In-Wall Space Heater with Shore Power Option – Standard
- Metal EMT Conduit Wiring – Standard
- 210’ Heated Spray Hose – Standard
- 27” Husky Industrial Tool Box/Workbench with Bench Vice and Tool Package – Standard
- 28” Husky Industrial Wall Cabinet
- Allegro 1 Man Fresh Air Respirator System – Standard
- Job Site Insulation Supply Package - Standard
- Free Initial Field Training on Your Job Site - Standard

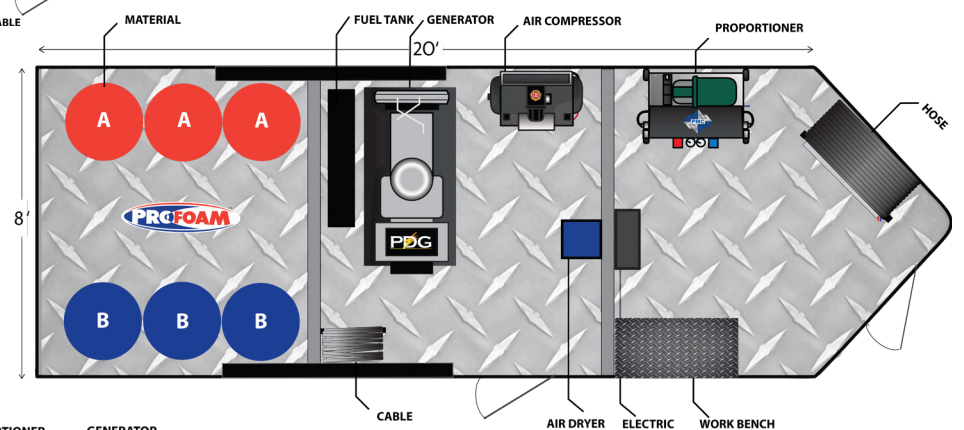
16’ Pro-Series PMC PH-2 - 18kW Gas Generator Powered Spray



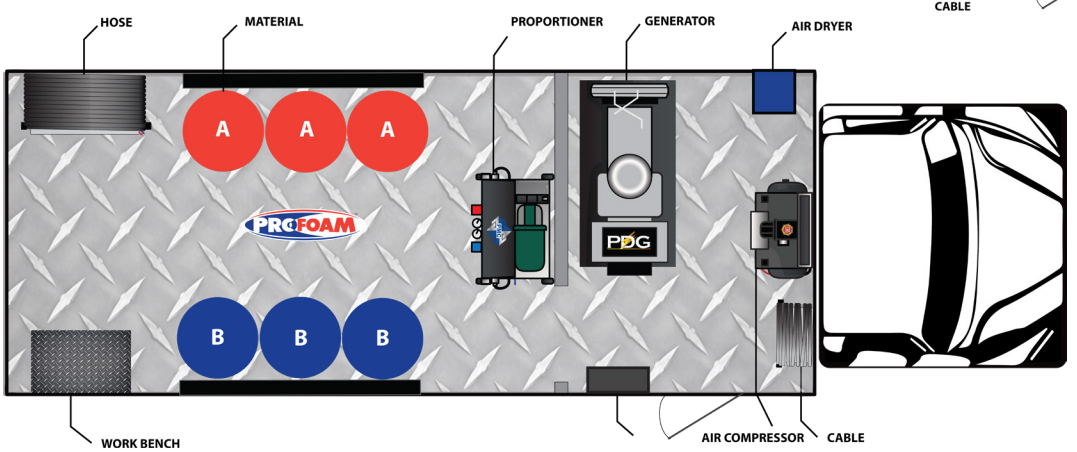
18’ Pro-Series PMC PH-2 - 40kW Diesel Powered Spray Rig (Without Interior Door)



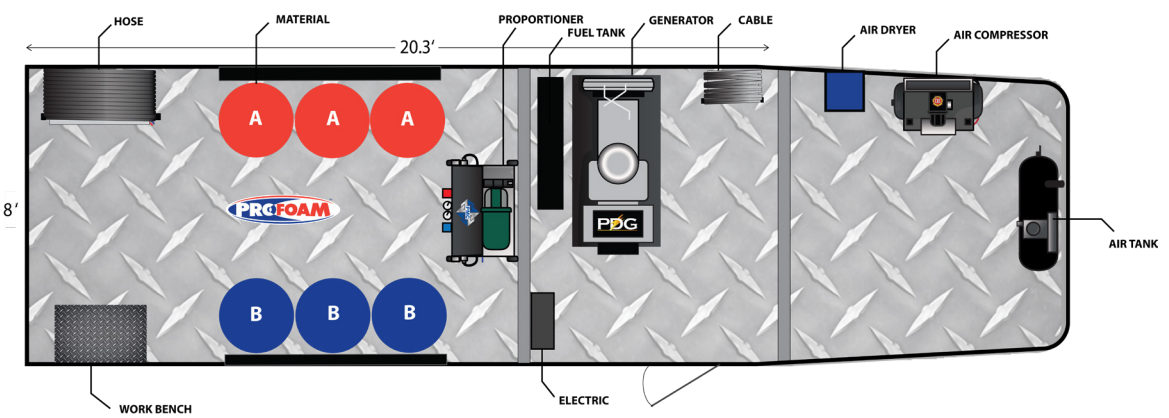
20’ Pro-Series 3-Compartment PMC PH-2 - 40kW Diesel Powered Spray Rig



PMC Pro-Series PMC PH-2 - 40kW Diesel Powered Box Truck Spray Rig (With Interior Door)



28’ Pro-Series Gooseneck PMC PH-2 - 40kW Diesel Powered Spray Rig (Without Interior Door)



Optional Equipment

Slide-Out Ramp

Easily roll foam drums on and off spray rig

Pneumatic Drum Mixer

Drum mixers are primarily used to agitate open cell resin

Drum Blankets

Drum blankets are a very effective tool to help ensure proper material temperatures of SPF material

Foam Planer

Ideal for trimming foam in stud fill applications

Other Optional Equipment Available:

- Drum Trucks
- Rooftop AC Unit
- Insulation Vacuum System

Safety Equipment

All Profoam mobile spray rigs come standard with all necessary safety and personal protection gear such as:

- (1) Allegro 9815-EF 1-Man Fresh Air Respirator System with 150’ 3/4” Air Hose
- (1) Allegro Full-Face Mask w/ Peel-Off Lens Covers
- (2) North Full-Face Masks with Organic Vapor Cartridges w/ Peel-Off Lens Covers
- (2) North Half-Masks with Organic Vapor Cartridges
- (1) Case of 2XL Spray Suits
- (12) Pair of Spray Gloves
- (1) Box of Latex Gloves
- (1) Package of Head Socks
- (1) 15-Minute Wall Mount Eye Wash Station
- (1) Wall Mount First Aid Kit
- (1) 5-lb Fire Extinguisher

About Profoam

Profoam Corporation is a leading supplier of closed cell and open cell spray foam insulation products and commercial roof products. Profoam manufactures custom built mobile spray foam rigs for SPF contractors and dealers. Profoam is a proud supporter of SPFA and the entire SPF Industry.

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