



LOW COST ACETYLENE PRODUCTION WITH SAFE, EFFICIENT OPERATION

*...ideal for geographic areas where acetylene consumption is low
and the transportation of cylinders is costly.*

Rexarc
Model 925

The Model 925 is a complete system for producing

The Rexarc Model 925 is a medium capacity acetylene cylinder filling plant for maximum carbide yield and high efficiency. The rated plant capacity is 25 m³ per hour, and charges 40 cylinders at one time.

Equipped with all safety features found only in Rexarc plants, the 925 is characterized with low building and installation costs. The carbide recharging time is minimal with a fast carbide recharging process. The unit is also equipped with Rexarc's highly efficient automatic water inlet and discharging system.

Because the system is so efficient, it produces a high return on your investment, and quickly pays for itself.

Generator – The Generator has all the safety features of Rexarc's largest plants: temperature safety instrument, water inlet control, high water shutoff, low water level alarm, automatic carbide feeding, automatic residue discharge, and over pressurization safety relief valves. A single hopper of approximately 300 kg feeds the carbide as needed, producing approximately 76 m³ of acetylene per charge.

Cooler Condenser – The acetylene gas passes through a cooler condenser to remove moisture.

Ammonia Scrubber – The ammonia scrubber removes 99% of the ammonia that develops during the acetylene generating process. Removing ammonia prevents amines from forming and clogging flame arresters and cylinders.

Rexarc Advantages

Easy Installation; the Model 925 arrives on skids pre-piped. Even in the most inclement or freezing weather, installation is simpler because of minimum on-site assembly.

Safe; safe operation is the most important feature of Rexarc plants. Rexarc's flame arresters and reverse flow check valves provide unequalled protection in the cylinder filling process. Devices for added protection are similar to those found ONLY in Rexarc's larger capacity plants.

Advanced engineering techniques; developed by Rexarc are the most modern in acetylene cylinder filling plants worldwide.

Economical; with the same high carbide yield as other Rexarc plants, the Model 925 is smaller, more compact, and less costly than larger capacity plants.

Compact; requires far less space than any competitive model of the same capacity, and does not require a costly gasholder.

Efficient; the smaller area reduces excess walking and rolling of cylinders.

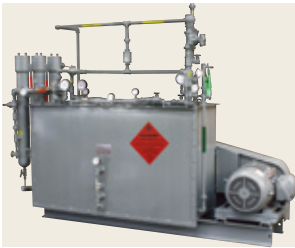
Local filling; reduces the need for additional cylinders as fast refill increases the effective use of cylinders.



acetylene gas safely and efficiently

Medium Pressure Drier – A medium pressure drier is included for additional drying due to climatic conditions.

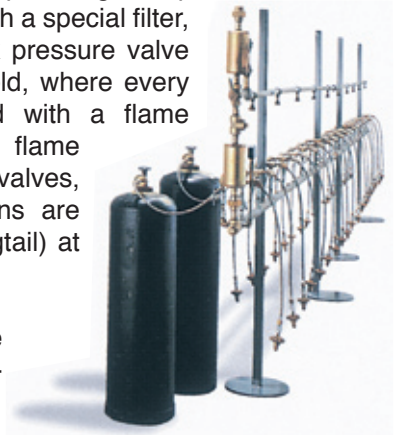
Purifier and Scrubber – The gas travels through a purifier to remove impurities that otherwise would collect in the cylinders, reducing the acetylene absorbing capability. The purifier and scrubber also assist in removing impurities that build up in the flame arresters, causing blocking and check valve malfunctions.



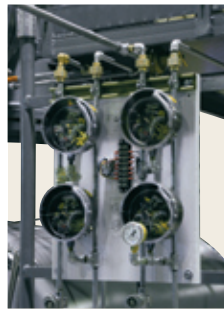
Compressor – A 3-stage compressor increases the acetylene pressure from .4 bars (6 psig) to 24 bars maximum (350 psig). Cooling coils and condensate traps are located at each stage, and the entire assembly of the compressor,

with its coils and traps, is submerged in water for maximum cooling of the acetylene gas.

High Pressure Driers – The high pressure driers remove moisture and oil picked up during compression. The acetylene then flows through a special filter, flame arrester, and a back pressure valve before going to the manifold, where every station valve is protected with a flame arrester on each side. A flame arrester, reverse flow check valves, and handwheel connections are on the end of the lead (pigtail) at the cylinder.



Charging – Charging of the cylinders can be accomplished in 8-10 hours.



Electrical Controls – Electrical controls include a weather-proof panel with a main disconnect switch, individual motor starters, and disconnect switches

An air compressor is included to supply air for the generator controls, the air hoist, acetone pump, and to reactivate the purifying material.

Throughout the entire process, safety devices monitor all operations because safe operation is one of the most important features of the Rexarc plant. All other plant instructions are included in the "Installation, Operation and Maintenance" manual.

Exceeding all competitive models, the Rexarc plants are extremely safe and highly efficient, obtaining the maximum yield from calcium carbide. In fact, increases in carbide yield have been up to 11% over low pressure plants – even new plants. Yields could be even greater when the Rexarc Model 925 is used to replace outdated plants.



Each Rexarc Model 925 Cylinder Filling Plant includes the following equipment:

- | | | |
|------------------------------|---|--------------------------------|
| ✓ Acetylene Generator | ✓ Purifier Scrubber | ✓ Check Valves |
| ✓ Filling Hopper | ✓ Acetylene Compressor | ✓ Monitor |
| ✓ Air Operated Hoist | ✓ High Pressure Drier | ✓ Drainback Manifold |
| ✓ Air Compressor | ✓ High Pressure Filter | ✓ Pneumatic Acetone Pump |
| ✓ Ammonia Scrubber | ✓ Flame Arrester | ✓ Scale for weighing cylinders |
| ✓ Acetylene Cooler Condenser | ✓ Back Pressure Relief Valve | ✓ Weatherproof MCC |
| ✓ Medium Pressure Drier | ✓ Charging Manifolds (2) 40-cylinder, including Flame Arresters and Handwheel Connection with Stem Check Valves | (Motor Control Center) |
| ✓ Purifier | | |

Model 925 Monthly Capacity:

The production capacity of the Model 925 is 880 cylinders per month based on one shift with an average cylinder size of 5.7 m³ (200 ft.³).

	Metric	US Customary
Acetylene Capacity	5000 m ³	176,500 ft. ³
Carbide Required, approx.	17,000 kg	37,500 lbs.
Carbide Size	25 x 5 0 mm	2 x 1 inches
Acetone Required, approx.	200 kg	440 lbs.
Water Required, for recirculating cooling water	113.5 m ³	30,000 gallons

Model 925 Electrical Specifications:

Acetylene Generator Motors (2): 3/4 horsepower, voltage to be supplied by customer.

Acetylene Compressor Motor: 7.5 horsepower, voltage to be supplied by customer.

Air Compressor: 5 horsepower, voltage to be supplied by customer.

Site Requirements:

Lot Size, minimum	59 x 38 m	193 x 123 feet
Building or Shelter (min. length x width x height*) ...	14.3 x 6.7 x 4.9 m	47 x 22 x 16 feet
Residue Pits, 2 recommended, 4-month capacity (length x width x depth)	14 x 15 x 1.5 m	46 x 49 x 5 feet
Shelter	to keep carbide dry and prevent water from freezing.	
Water Supply	2.5 bars, 68 liters/min.	35 psi, 18 gallons/min.
Electrical Supply: 5 kW (Customer to provide conduit to the motor control center and motors.)		

* Height includes filling hopper and hoist.

The Model 925 Acetylene Cylinder Filling Plant is Easy to Buy . . . Easy to Assemble

Planning Guidance. When you purchase a Rexarc Acetylene Manufacturing and Cylinder Filling Plant, you receive planning guidance on the floor plan and other building details for your specific plant.

Containerized Shipments. Most export shipments are containerized right at the factory. The containers need not be opened until they arrive at your site.

Installation and Training Assistance. Rexarc can provide a skilled technician to assist in the commissioning of your plant.

Replacement Parts. Your acetylene plant is composed of standard Rexarc replaceable parts. Some spare parts are provided initially with your plant; others are readily available from the factory.



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